Hassell

MASTERPLAN FOR PERTH CITY RIVERFRONT



017147
Riverfront Masterplan

Prepared for
City of Perth

Hassell ©
30th July 2024

Ngalang Boorloo maya Wadjak boodjar-ak.

We, Hassell, create on Wadjak Boodjar (Country) near to the shores of the Derbal Yerrigan (Swan River) and the peak of Kaarta Koombar (Kings Park).

Ngalak kaditj Wadjak moort kalyakoorl kaaradj boodjar-ak ngalak yaka.

We acknowledge and respect the Wadjak people as the original custodians of the Boodjar (Country) upon which we work.

Ngalak koota-djinang baalaban Birdiya koora wer yeyi ngiyan kalyakoorl kadadjiny.

We honour Noongar Elders past, present and emerging whose kadadjiny (knowledge) ensures the continuation of cultures and traditional practices.

Hassell (Perth)
Whadjuk Country
Level 1
Commonwealth Bank Building
242 Murray Street
Perth WA Australia 6000
T +61 8 6477 6000
E perth@hassellstudio.com
hassellstudio.com
@hassell_studio

1.	Executive summary	1
2.	Introduction	6
3.	The site	11
4.	The opportunity	22
5.	The masterplan	34
6.	Strategies	50
7.	Implementation	74

Document Control

Rev	Date	Approved By	Description
01	12.07.2024	Anthony Brookfield	Draft 1 – for review
02	30.07.2024	Anthony Brookfield	Final – for approval

Hassell ©

1. EXECUTIVE SUMMARY



RIVERFRONT MASTERPLAN

THE OPPORTUNITY

Perth's Riverfront is a beautiful setting and would be the envy of many a city. However it has not fully realised its potential and its contribution and quality of experience for the community is limited. The City of Perth has therefore committed to the development of a Masterplan to establish a vision and framework to guide development decisions.

Since 1883 there have been over 200 Masterplans developed for the Riverfront, none of which have progressed. The deteriorating existing river wall, significant reduction in traffic along Riverside Drive, progress of the Aboriginal Cultural Centre project (positioned on Terrace Road car park) and an anticipated growing residential population within the city has led the City of Perth to create a new Masterplan. This is reinforced by the City of Perth's Local Planning Strategy which identifies the need to develop a plan for the Riverfront - to enhance and broaden its current use and to plan for the demands of a growing city population.

OBJECTIVES

In recent years the City of Perth has undertaken a series of analysis and technical studies, as well as community engagement. This work has underpinned the objectives of creating an improved Riverfront, which is better connected to the city, upgrades the quality of its environment and provides more activation opportunities. The Riverfront should re-think its relationship with the water and re-introduce a landscape which is more reflective of the natural environment. The Masterplan should address ways of moving to and through the area creating improved connections to the surrounding precincts. It must also be a platform for the celebration of Perth's rich Whadjuk Noongar culture, as well as interpreting through art and design its recent history.

The Masterplan needs to acknowledge Perth's changing climate. The plan must be resilient, establishing a place which can robustly mitigate the effects of a drying and warming climate, with river levels which are anticipated to rise over time.

PROCESS

This Masterplan has been developed from late 2023 through to mid 2024. It has worked through a process of research, engagement and collaboration with the City of Perth team, as well as stakeholders. Following an initial phase of research and review stakeholders were engaged to inform the plan. Two rounds of engagement sessions were held with,

- Department of Finance
- Department of Local Government Sports and Culture
- Main Roads WA
- Public Transport Authority
- Department of Transport (Mobility and Maritime)
- Infrastructure WA
- Tourism WA
- Department of Biodiversity, Conservation and Attractions
- Swan River Trust



Map of Perth - 1838 (State Library of Western Australia)


Langley Park - looking west

A number of Masterplan options were developed for review and direction by the City of Perth project team and the Elected Members. In June 2024 the Masterplan was presented to the City of Perth Elders Group.

VISION

Through this process the vision for the Riverfront Masterplan has been defined. The Masterplan vision statement is as follows,

'The Masterplan for the Perth City Riverfront provides a framework for re-connecting people and the city with the river. It will be an active and attractive river park destination for everyone. Infused with nature, biodiversity and culture it will be a world class city park, a key part of Swan River landscape experience'.



Hassell ©

RIVERFRONT MASTERPLAN

DESIGN PRINCIPLES

The overarching principles of ***Place***, ***Environment*** and ***Movement*** have guided the Masterplan. These principles will combine to form a successful design outcome, which realises the opportunity at the Riverfront.

The Riverfront Masterplan envisions a place which is attractive, safe and welcoming for all people. It draws people to the riverside parkland to enjoy the environment and explore its culture and heritage.

The Riverfront will re-think its connection to the environment with the establishment of more urban tree canopy, river edge planting and the creation of native habitat zones to attract local wildlife.

It will integrate natural processes to help clean rain water and will also reduce its own water use, as well as reliance on fertilisers and onerous maintenance requirements.

Critically the Masterplan provides for a wide range of opportunities to visit and move through the Riverfront. Improved walkability and provision for active and public transport are integrated. The road network is largely retained, with some modification, to ensure the locality is adequately served, while acknowledging that private vehicles cannot be the sole method of visiting the area.

KEY MOVES

Six key moves have shaped the Riverfront Masterplan. These include:

- ***Re-imagining the river edge***
- ***Riverside drive re-aligned***
- ***Destination attraction***
- ***Connecting to the city***
- ***Riverfront in nature***
- ***Things to do!***

A MASTERPLAN OF PRECINCTS

The key moves have led to the creation of the Masterplan shown below. A series of precincts shape the plan.

Moving from west to east these are defined as follows:

- ***Precinct 1 - Cultural*** *- Connecting a revitalised river edge condition with Supreme Court Gardens, Perth Concert Hall, Government House and the proposed Aboriginal Cultural Centre.*
- ***Precinct 2 - Play*** *- Introducing a destination play experience within a natural environment of wetlands, wildflowers and trees complemented by activity lawns, beaches, jetties, cafés and restaurants.*
- ***Precinct 3 - Leisure*** *- A major new destination experience (The Lagoon) supported by food and beverage outlets, parking, jetties and expansive multi-level nature gardens.*
- ***Precinct 4 - Event*** *- A large lawn supports events and community sports. A revitalised river edge experience includes beaches, headlands, native planting and a cultural arbour experience.*
- ***Precinct 5 - Ecology*** *- The Masterplan connects with the established Point Fraser nature park and wetlands, introducing river edge planting and habitat islands.*

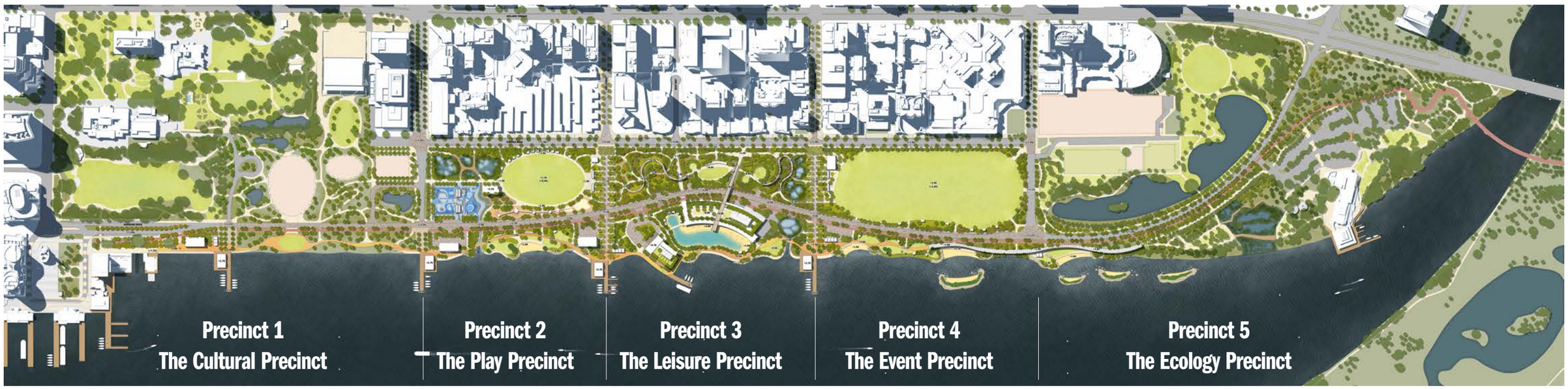
The characteristics of these precincts are not exclusive but instead acknowledge their main driver.

Riverside Drive re-alignment is an important structural element of the Masterplan, as is the re-imagined water's edge, Dyeedyallalup cultural river walk and the Hill Street and Bennett Street pedestrian spines connecting to the river edge activation nodes.

IMPLEMENTATION

The Masterplan envisages a staged implementation over a nominal twenty year period. There is an opportunity to leverage the Aboriginal Cultural Centre project. The western precincts have the potential to be implemented in the earlier stages.

Funding will need to be sourced from a variety of government bodies and there are opportunities for hospitality and tourism specialists to invest in elements such as The Lagoon, tourist accommodation and food and beverage outlets.



Hassell ©





4 BEACHES	2 EVENT LAWNS	3,000 TREES	12 RESTAURANTS/BARS	8 BUS STOPS
4 HABITAT ISLANDS	3 FOOTBALL PITCHES	500,000 PLANTS	7 CAFES	1,000 CAR BAYS
5 JETTIES	1.7KM RIVER WALK	7,300M2 WETLANDS	THE LAGOON	1 FERRY STOP
330M ARBOR	7,400M2 PLAY SPACE	39 SHELTERS	15 BBQS	1.75KM SHARED PATHWAY

2. INTRODUCTION



INTRODUCTION

WHADJUK COUNTRY – DYEEDYALLALUP

The Masterplan is located on Whadjuk Country which was formed in the Koora-koora, *a long time ago, a very, very long time ago* during the Nyitting. The lore for social and moral order was established through cultural patterns and customs. The Waugyl rose up from Kaarta Garup (Mt. Eliza at the foot of Kings Park), and gave life, forming the Noongar Boodja, the beautiful Derbarl Yerrigan and Buneenboro (Perth Water). It is a spiritual place of significance to Whadjuk Noongar peoples of Boorloo.

Dyeedyallalup is the lowlands along the river's edge and derives its name from the large clay and ochre deposits (djardak/white, mirda/red and yoont/yellow) found in the area. The natural spring made the Dyeedyallalup an important place for people to meet.

RIVERFRONT EVOLUTION

The Perth City Riverfront is often referred to as Perth's front garden. This environment has served the community from the Nyitting era to the present day.

Soon after settlement Government House with its gardens and jetties was developed (1859-1864). In 1873, the Esplanade Reserve was created in response to the public's desire for more parkland.

Perth's first sewage system was constructed in 1914 with a pumping station located on the northern edge of the park. Langley Park was a significant reclamation project completed between 1921 and 1935. The construction of the foreshore led to the formation of recreational groups, such as the Perth Bowling Club in 1892 and the Perth Flying Squadron in 1897. Langley Park also hosted Western Australia's first aerodrome in 1920, providing the country's first regular air mail service. In 1963, Council House was erected next to Government House.

In 2006, 2007, and 2008, the final stage of the Red Bull Air Race World Series was held over the Swan River and Perth Water.

THE RIVERFRONT TODAY

Today, Langley Park hosts sporting and community events including cultural festivals. From time to time there are large concerts or attractions such as the Perth Skyworks. The park provides a vast lawned area for picnics, community sports and walking or cycling along the river.

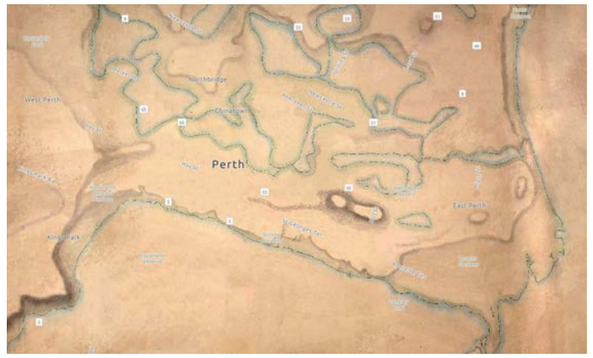
It was in 2019 that the City undertook The Public Life Study which indicated the park was under-utilised and used by only a small cross section of the community.

FUTURE PERTH

Growth is evident. Greater Perth is home to 77 per cent of the state's 2.6 million people. With 2.9 million people anticipated by 2031, rising to 3.5 million by 2050, Perth will become the third largest city in Australia. Today, the City of Perth has over 30,000 residents, with significant numbers of workers and daily visitors that all require access to quality open space. As a regular top 10 ranked city on the Economist Intelligence Unit's World's Most Liveable Cities survey, Perth is keen to remain a place of choice for its growing number of residents, businesses and visitors.

CONTEXT – SWAN RIVER LANDSCAPE EXPERIENCE

Dyeedyallalup is a vital part of the interconnected and continuous landscape along the banks of the Derbarl Yerrigan. From the scenic views at Kings Park to the lively events at Optus Stadium and Burswood Park, the loop around Buneenboro (Perth Water) offers a diverse and picturesque landscape experience. The bustling activity at Elizabeth Quay is balanced by the tranquillity of the Supreme Court Gardens and the anticipated Aboriginal Cultural Centre, which will infuse the locality with cultural significance.



Whadjuk Boodja - 1827



Swan River (Bivouac of Captain Stirling, View of the Swan River 50 Miles Up) - 1828-1829 ^



Dyeedyallalup - lowlands along the river's edge. Causeway Bridges - 1890-1900



View of Perth from Kings Park - 1955 ^



View of Perth from Terrace Road showing Langley Park - 1985 ^



Langley Park looking east - 2024



Pedestrian path along the river's edge - 2024



Riverside Drive - 2024

^ City of Perth Cultural Collections

INTRODUCTION

The Riverfront Masterplan seeks to position Dyeedyallalup as the premier recreational parkland destination along the river.

MASTERPLAN OBJECTIVES

The key objectives for Riverfront Masterplan are to,

- Create a reconnection for people to the water and river's edge.
- Reveal the historical and cultural significance of the Swan River.
- Create a cohesive public waterfront promenade that prioritizes pedestrians over vehicles.
- Augment the recreational qualities of the foreshore whilst connecting and leveraging off existing green space.
- Protect and enhance biodiversity values.
- Upgrade aging infrastructure, including addressing the existing river wall.
- Look to naturalise and vary the form of the river edge.
- Respond to the impact of climate change.

MASTERPLAN PROCESS

The development of a Riverfront Masterplan marks the beginning of a major city-shaping, transformational project that will require ongoing community, government and private sector support.

Strong engagement by the local community and stakeholders is a vital part of the process. The Masterplan will require advocacy and partnering from the City of Perth and State Government.

For this Masterplan process the City of Perth has driven the work as its seeks to ensure there is a defined vision which is borne from a sound understanding of place and acknowledges what Perth requires as it grows as a city into the future.

CITY OF PERTH GOALS

Via this project the City of Perth is guiding the delivery of infrastructure to meet the needs of a growing city population. In 2018 and 2020 the City undertook extensive community engagement to inform development of Riverfront Masterplan options. The strategic drivers for the City of Perth were:

- River wall replacement. 70% of the degraded river wall requires a long-term replacement solution.
- Activation and events opportunities. In 2018 a Public Life Study highlighted the need to increase and diversify activation to provide event and other amenity to support a growing population.

Alongside these important strategic drivers was the reduction in use of Riverside Drive due to the construction of Elizabeth Quay and the identification of the site for the new Aboriginal Cultural Centre (ACC) on the Terrace Road car park.

ESTABLISHING THE FRAMEWORK FOR DELIVERY

The creation of a world-class Riverfront destination at Dyeedyallalup is expected to occur over some 20 years. The Masterplan establishes the first important piece of design work to inform this framework.

The Masterplan establishes a clarity of vision and defines where further feasibility, planning and technical work is required.

It is clear that strong advocacy will be required which continues to take the community, stakeholders and potential funding and delivery partners on the journey to realise the vision.



Kings Park



Elizabeth Quay



Optus Stadium



Hassell ©

INTRODUCTION

GOVERNANCE AND PLANNING FRAMEWORK

While the Masterplan for the Perth City Riverfront establishes the City of Perth's vision, implementation will require the coordination of a number of government agencies. A whole of government approach will be required to implement this aspirational vision.

Development of the area will be subject to a range of approval processes. The immediate river's edge is located within the Swan River Trust Development Control Area and therefore development is approved by the Department of Biodiversity, Conservation and Attractions (DBCA) in consultation with the Swan River Trust and other agencies.

Riverside Drive is identified as a Primary Regional Road and Other Regional Road and currently under the management of the Commissioner of Main Roads.

Works within the Parks and Recreation Reserve will need to be in accordance with a Management Plan, endorsed by the Western Australian Planning Commission.

With both Aboriginal Cultural Heritage and Historic Heritage Places identified, appropriate engagement and approvals will be required in that regard.

Planning, environmental and cultural approvals will form part of a comprehensive approval and governance framework.

PERTH WATER BUNEENBORO PRECINCT PLAN

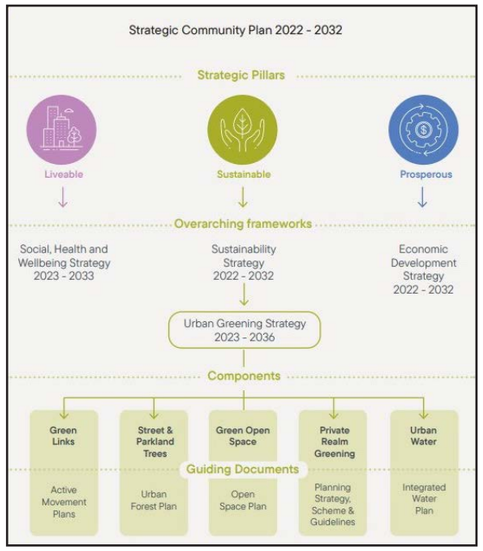
The Masterplan for the Perth City Riverfront aligns and further develops the intent of the Perth Water Buneenboro Locality Plan. The DBCA Locality Plan focuses on respecting the cultural and environmental value of Perth Water, and addresses key development considerations such as tourism and recreation opportunities, commercial use and transport improvements around and across the river. Perth Water Buneenboro Locality Plan is an initiative of the Perth Water Vision Group which comprises eight government agencies, including the City of Perth.

CITY OF PERTH URBAN GREENING STRATEGY (UGS)

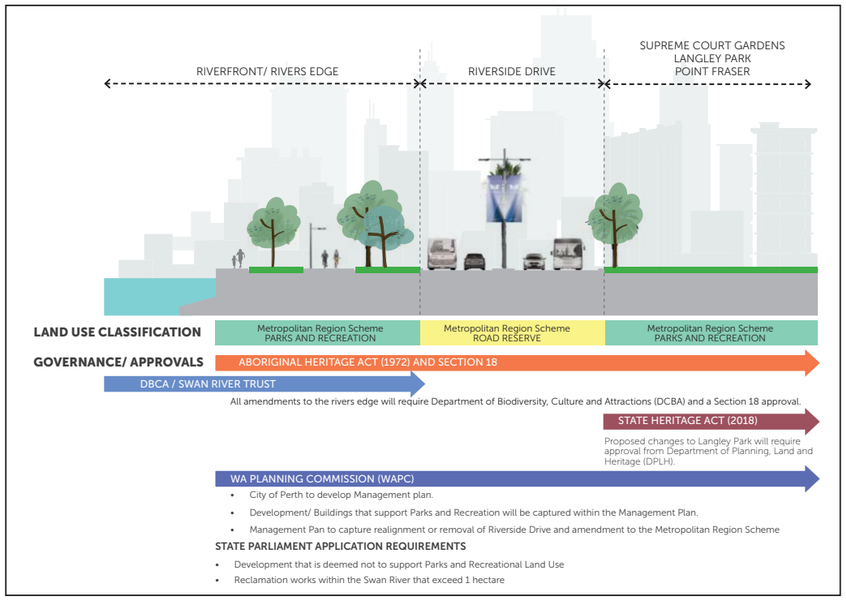
The City of Perth has recently published its Urban Greening Strategy. This important planning document supports Perth's strategic pillars of being a liveable, sustainable and prosperous city. The UGS is an overarching strategy which covers the City of Perth's approach to five key aspects of management of the external environment,

- Green links
- Street and parkland trees
- Green open space
- Private realm greening
- Urban water

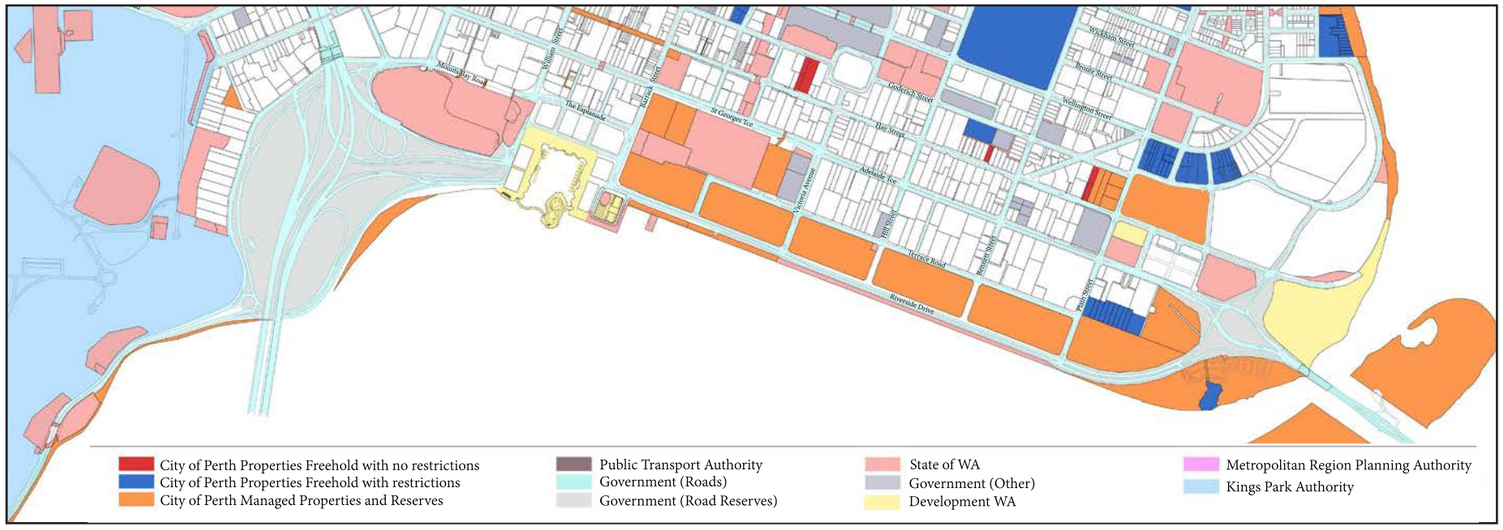
The Riverfront Masterplan is a project identified within the UGS which can make a significant contribution to the quality of Perth's landscape.



Urban Greening Strategy - Integrated Planning Framework (City of Perth)



Perth Riverfront Governance



City of Perth Freehold/Crown and Major Government Holdings - 2021

INTRODUCTION

RECENT ENGAGEMENT

City of Perth Elders Group Engagement

The Masterplan project has had a number of engagement sessions with the City of Perth's Elders Group. The group are supportive of a transformative approach to the Riverfront, with a particular focus on connecting with the river and re-introducing a more natural landscape. It should be a place where Whadjuk Noongar culture is celebrated. Further engagement will be undertaken with the Elders Group, as well as the Whadjuk Aboriginal Corporation/ Cultural Advice Committee, as the project progresses.

Public Life Study (2019)

In 2019, the City undertook The Public Life Study to assess how the Riverfront is currently used. The community reported that they would typically pass through the space on weekday and weekends. Predominately the Riverfront was being used during lunch time or at the end of the day with a significant drop off at sunset. While the community considered Langley Park to be underutilised the playground was identified as being used by local children. Activity is focused on spring and summer with 60% of events taking place on the weekends during this time. High speed male cyclists are overwhelmingly the most prominent users of the shared pathway along the river edge.

The City's Public Life Study highlighted the missed opportunities. Langley Park in particular could better serve the people of Perth by:

- Diversifying the attractions to include a more diverse range of community members, all ages and genders.
- Expand the use of the park across the day, including benefiting from being the world's sunniest city and providing safe evening activities.
- Diversify the year round use of the park.

Stakeholder Workshop (2020)

The City of Perth facilitated a workshop with key stakeholders in August 2020. Participants were drawn from State Government departments, peak industry bodies, tourism and hospitality operators, and local government authorities. The aim of the workshop was to understand the key themes and opportunities when considering the potential of the Riverfront. Key themes which emerged focussed on enhancing and making significant improvements to the following,

- Connectivity
- Activation
- On water activities
- Cultural heritage
- A place for all

Stakeholder engagement (2024)

The Masterplan process has taken the time to engage with the key stakeholders who would be affected by the Riverfront project. Over two rounds of workshops opportunities, constraints, and key issues were discussed with the following,

- Department of Finance
- Department of Local Government Sports and Culture
- Main Roads WA
- Public Transport Authority
- Department of Transport (Mobility and Maritime)
- Infrastructure WA
- Tourism WA
- Department of Biodiversity, Conservation and Attractions
- Swan River Trust

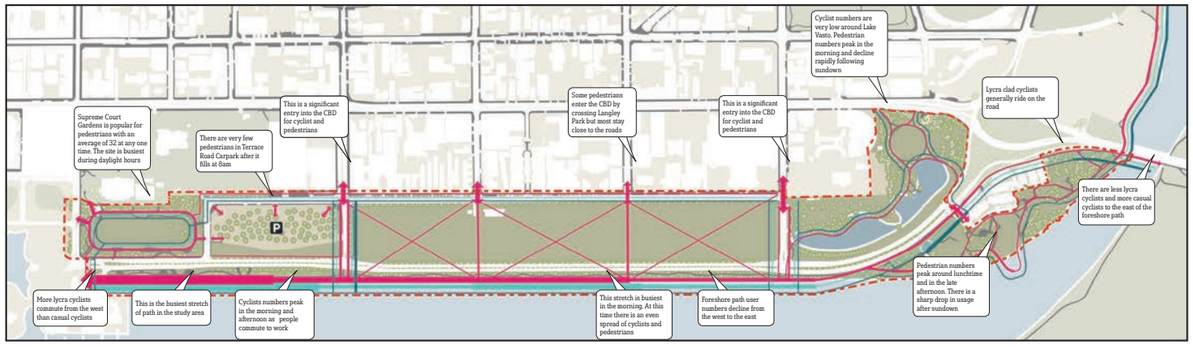
Acknowledging that work will be required to establish a delivery/funding model and that further commercial and technical studies and design would be required, there was broad support from all agencies. The key message was that it is now time to realise the potential of the City of Perth Riverfront.



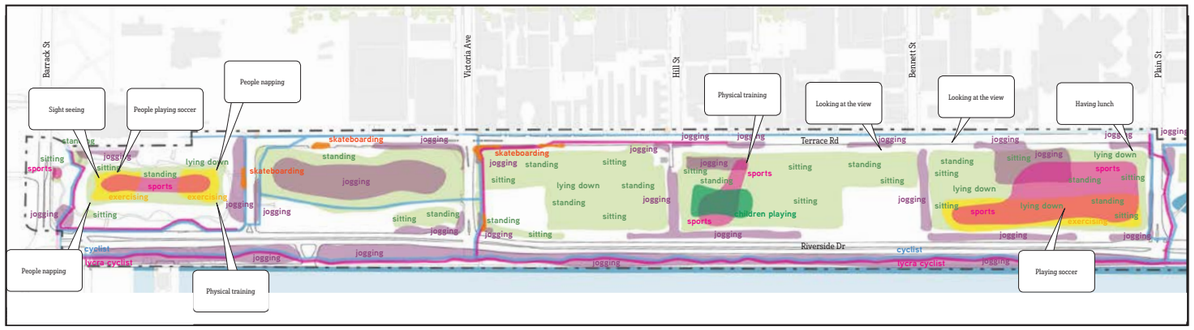


City of Perth Stakeholder Workshop - August 2020

Weekday movements



Weekday utilisation and activity



Extracts from Perth Riverfront Public Life Study 2019 (City of Perth)

3. THE SITE



COUNTRY

For the Whadjuk Noongar people, the original custodians of the land, Country holds profound importance, encompassing spiritual, cultural, social, and economic value.

Country is deeply intertwined with the Whadjuk Noongar people's spiritual beliefs. It is considered a living entity with which Whadjuk share a mutual relationship. The land, waters, and skies are home to ancestral spirits and are sites of sacred stories and creation myths.

Connection to Country is integral to the Whadjuk Noongar people's sense of identity and belonging. It is central to Whadjuk language, traditions, and social structures. It also sustains life including food, water, medicine, and materials for shelter and tools. Spending time on Country, engaging in traditional practices, and maintaining a connection to the land are essential for physical, mental, and spiritual health.

The knowledge of Country, traditional practices and lore are passed down through generations from Elders to younger members.

For the Whadjuk Noongar people, Country is far more than a physical landscape; it is a sacred and vital aspect of existence, encompassing spirituality, culture, identity, and survival.



Ngoolyarak (Red-tailed black cockatoo)



Minyit (Ant)



Djidi-djidi (Willy wagtail)

Barracks Arch (Camp, part of tribal leader Yellagonga's campsite)

Perth Town Hall (Camp)

Goodinup/ Spring Street (Camp, water sources)

Claisebrook Camp (Camp, water source)

Esplanade (Camp, hunting place)

Midgiegooroo's Execution & Burial

Kilang Minangaldjkba (water source near the current Waterbank development site) A spring located to the North of the roundabout on Adelaide Terrace

Derbal Yerrigan holds great significance to the Noongar people, it was created by the rainbow serpent or Waugal

Dyeedyallalup

Dyeedyallalup (Camp, ochre and water source)



Yarkiny (Western Swamp Tortoise)



Djildjit (Catfish)



Maali (Black Swan)

Mattagerup - Heirisson Island (Mythological, Camp, Hunting Place, Meeting Place, Plant Resource)

DYEEDYALLALUP

Dyeedyallalup, created in the Nyitting, is the name given to the lowlands along Buneenboro (Perth Water). This area holds significant importance in Whadjuk Nyoongar culture. According to the Aboriginal History unit of DLGSC the name Dyeedyallalup comes from the large clay deposits that characterized the region.

Clay is a vital resource and well-being tool for the Nyoongar people, with various physical, spiritual, and social uses. Djardak and mirda were used to decorate the body for ceremonial dances, while yoont served as a tint for rock art paint.

A mixture of clay and animal fat, known as wilgi, was used to protect against the sun's ultra-violet rays, insects, and adverse weather conditions. Wilgi also masked human scent, facilitating hunting of yonga (kangaroo) and wedtj (emu).

Following a meeting with Governor Stirling at Government House in 1835 Dyeedyallalup served as a camping ground.

The river edge, freshwater springs and shallow, marshy water with sedges made it highly valuable as a fishing area.

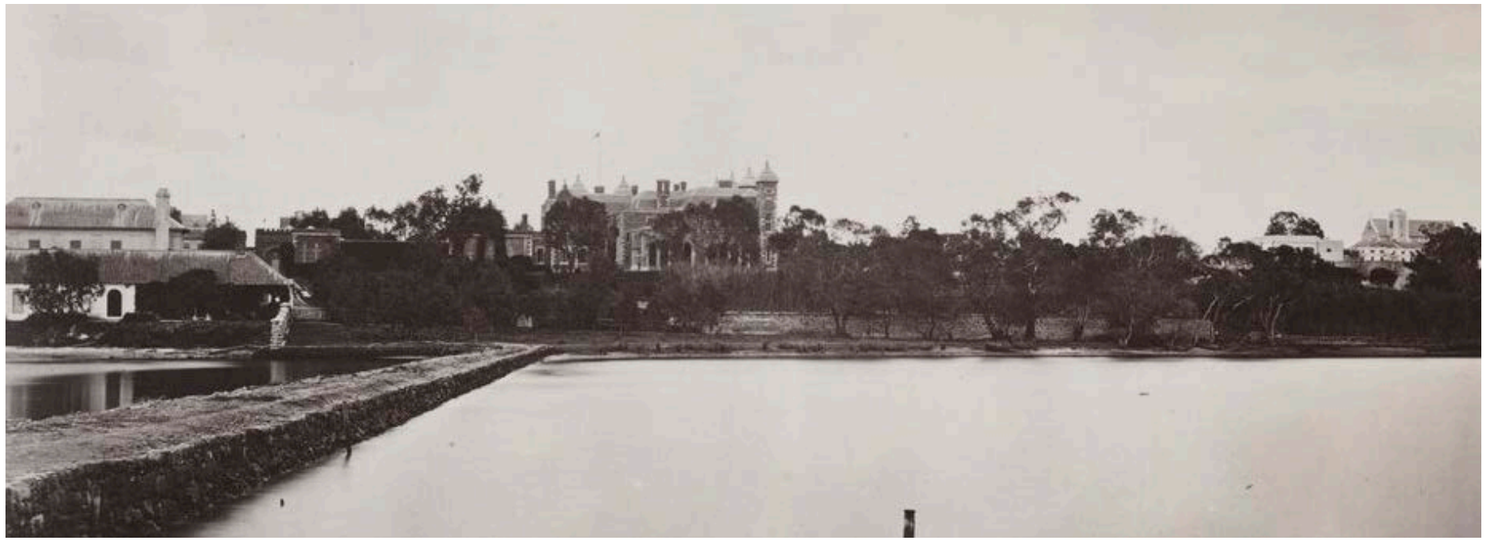
Today, most of the Dyeedyallalup area lies beneath present day Langley Park along the Perth Foreshore.



Causeway Bridges 1890-1900 State Library of Western Australia on Gnarla Boodja Mili Mili (Our Country on Paper) Aboriginal Place names - DLGSC



Gnarla Boodja Mili Mili (Our Country on Paper) Aboriginal Place names - DLGSC



Government House from the end of the Pier Street Jetty, Alfred Hawes Stone, 1868, State Library of Western Australia, 6909B/52 - Museum of Perth

HISTORY – POST SETTLEMENT

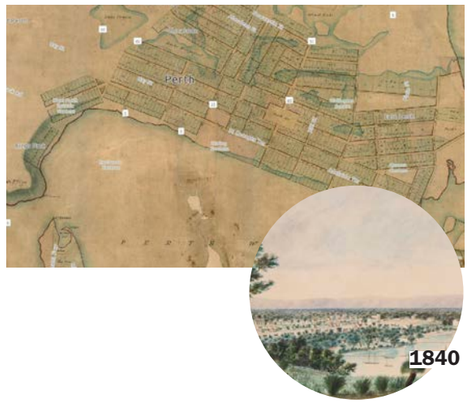
Between 1875 – 1886 the public debate focused on the lack of parkland in Perth with a desire for a network of parklands in central Perth and around the river. It was 1886 when reclamation of the area between William and Barrack Street for Esplanade reserve occurred.

1827 A network of water bodies



View at Swan-River. Sketch of the Encampment of Matw. Curling Friend, Esqr., R.N., 1830 [coloured lithograph] Mrs Mary Ann Friend

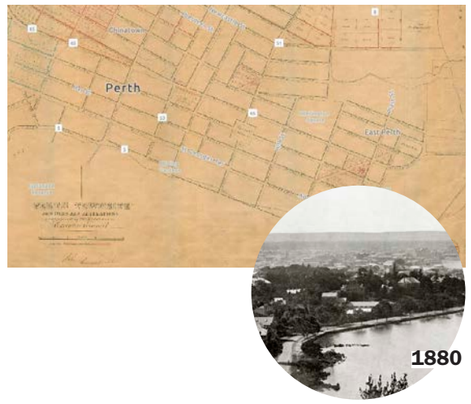
1838 Land surveyed



1845 Terrace Road on waters edge



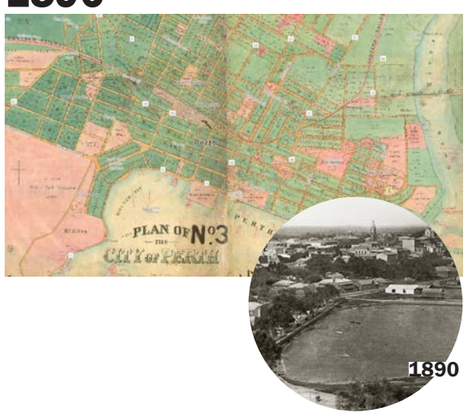
1855 Northbridge subdivision



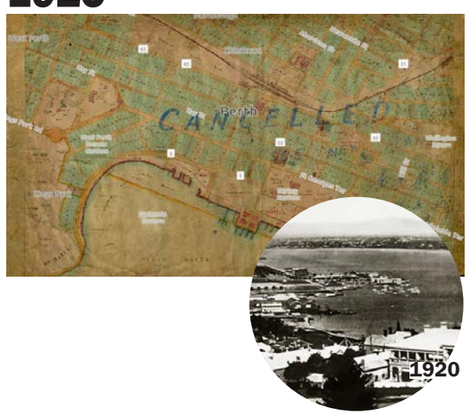
1894 Eastern Railway



1896 Public recreation reserve



1925 Parkland south of Terrace Road



1948 Stirling Gardens



1960 Expansion of parkland



1985 Regional road and car park



HISTORY – LANGLEY PARK

LANGLEY PARK

Created between 1921 and 1935, Langley Park was a reclamation project commenced by acting Lord Mayor of Perth at the time, T. W. Langley.

Soon after it was created, Langley Park became Perth's first airstrip, which was used primarily by aviation pioneer Major Norman Brearley, who founded West Australian Airways Ltd. (10 months before QANTAS was formed) and the Perth Flying School in 1921.

On the northern side of the park is a small brick pumping station that was built in 1914 and became part of Perth's first sewage system. In 2011 Langley Park was entered onto the State Register of Heritage Places for its social, cultural and historic significance (inHerit No. 3346).

Langley Park was a gazetted airstrip until the construction of the towers at Elizabeth Quay, meaning it was the only city in the world where aircraft could land in a CBD.

Today Langley Park is used for large scale events and community sporting activities such as football, cricket and AFL. However for the majority of the time the 12 hectare expanse of Langley Park is under-utilised.



Perth foreshore and Langley Park looking east, 1938
City of Perth Cultural Collections

Pump Station

Low Level Sewage Pumping Stations No.s 1 & 2, Perth

Place No. 03298

The pumping stations are the survivors of the first three such buildings built in Perth to provide sewage pumping facilities and men's public toilets. It was the first time in Western Australia that sewerage and deep drainage infrastructure was constructed in the metropolitan area in the pre-World War One period.







12 hectare lawn of Langley Park

Langley Park

Reserve 12510 and 13949

Place No. 03346

The place was part of the ongoing reclamation of the Swan River foreshore to create a network of public open spaces and river amenities aimed at linking the city environment to the river, and is a continuation of the vision for the foreshore developed in the 1880s, which encompassed the ideals of the City Beautiful Planning Movement.



SITE – MAIN FEATURES

Today Langley Park, Supreme Court Gardens and the Ozone Park combine to create approximately 44 hectares of predominantly lawned parkland. Riverside Drive is aligned some 20-30m from the river's edge. Palm trees (Washingtonia robusta) line the road.

Langley Park is the premier outdoor events space in the City of Perth. The park hosts a calendar of large and small scale events, including cultural and community festivals, Australia Day celebrations, music concerts and sporting competitions.

The pumping station building survives in its original position in the park.

At nearly a kilometre in length the expansive open grassed area is supported by adult exercise stations, a children's playground, changing rooms/ public toilets, and drinking fountains.

Riverside Drive dominates the Riverfront yet traffic levels have declined since the construction of Elizabeth Quay.

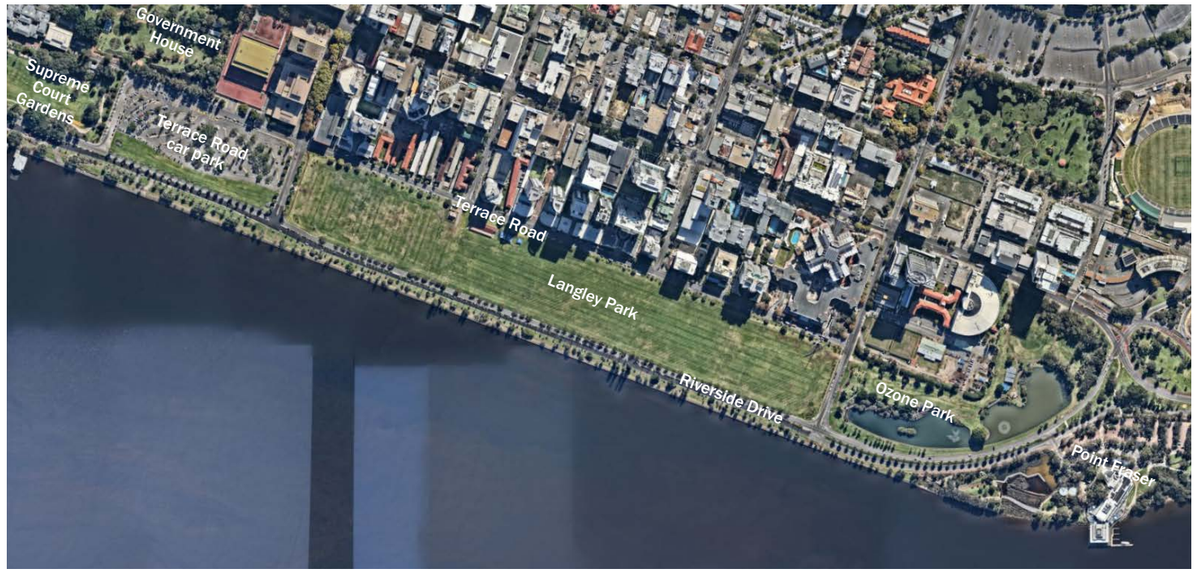
A shared walking/cycling path and pedestrian path on the river's edge, both run the length of the Masterplan area connecting cyclists and pedestrians to a regional network.

Amongst other native and exotic species there are a number of impressive, mature pine trees located along the river's edge.

A trigger for the Masterplan is the condition of the aging river wall. The years of exposure to south and south-west onshore afternoon winds and winter storms has taken its toll. Portions of the wall are now dilapidated and need urgent repair or replacement.

To the east Ozone Park and Point Fraser host a series of wetlands that supports enhanced stormwater management, native planting and local birdlife.

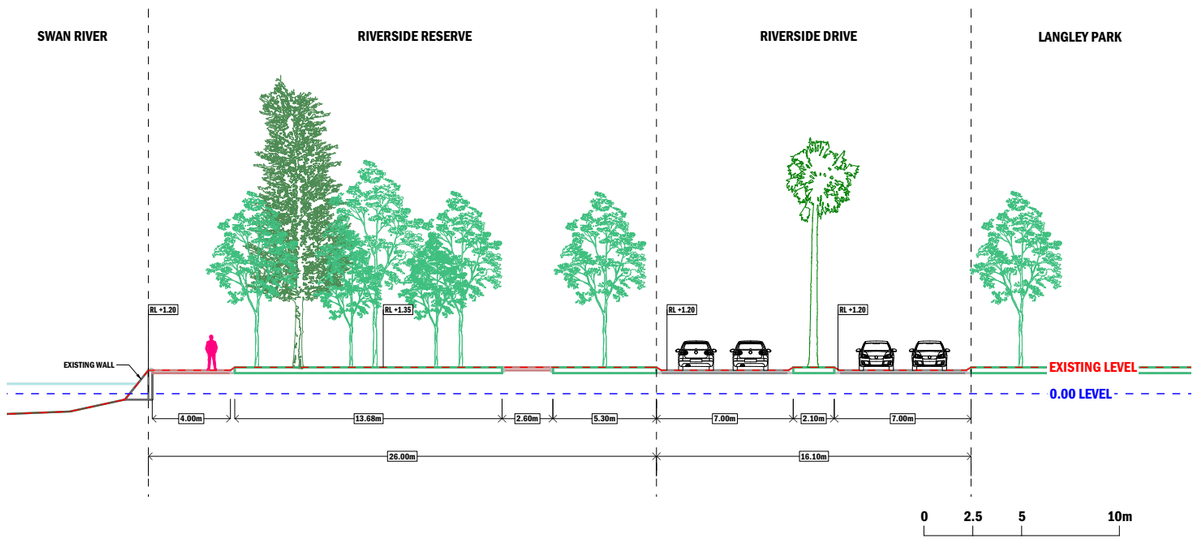
At the western end of the Masterplan area Terrace Street car park is the proposed development site for the Aboriginal Cultural Centre. The Supreme Court Gardens links to Elizabeth Quay and is host to a number of popular events throughout the year.











Typical cross section through river edge and Riverside Drive

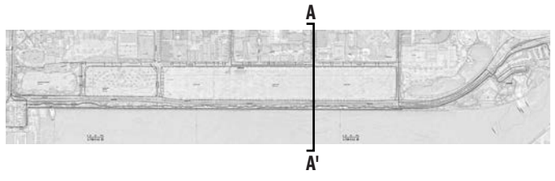
SITE – TOPOGRAPHY

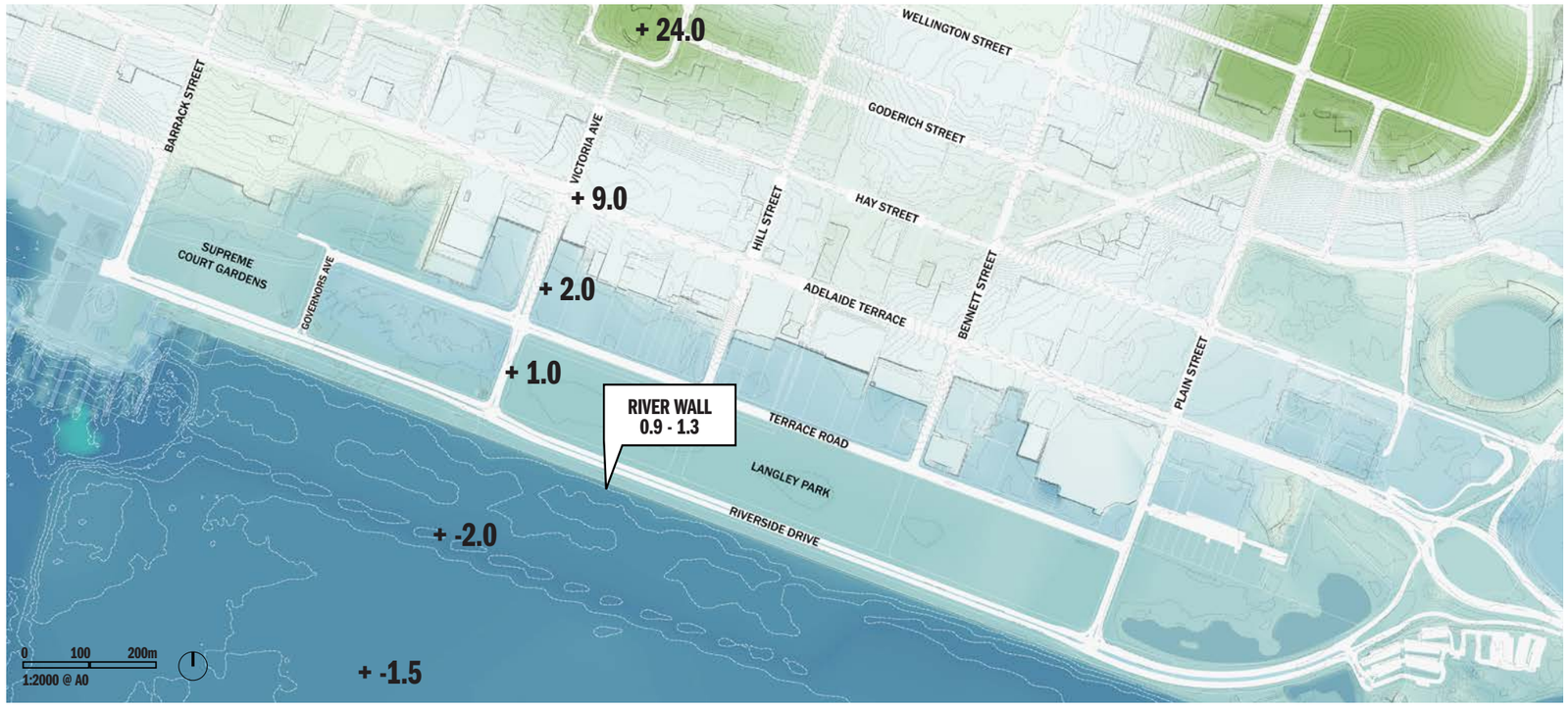
Langley Park is reclaimed from the Swan River. It is protected by a river wall with a top level of between +0.9 to +1.3m AHD. The majority of Langley Park sits at a level of around +1.0m AHD.

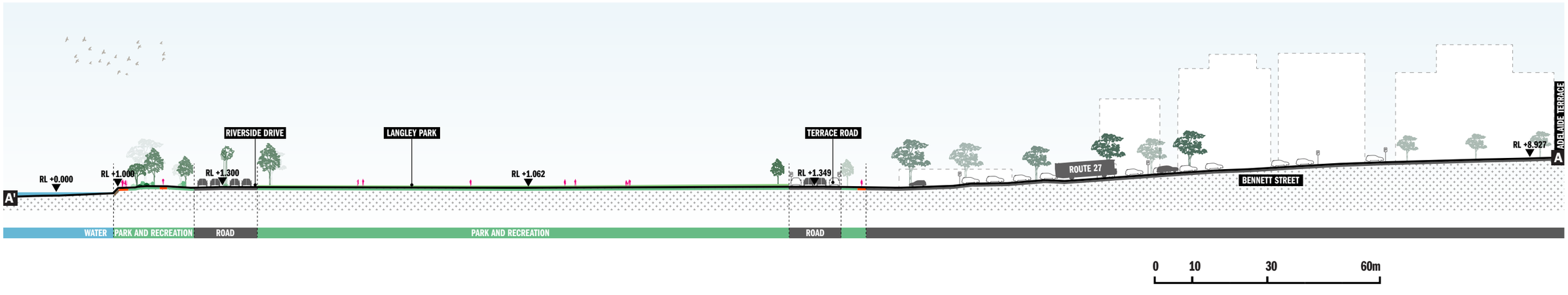
Sitting at the similar level as its surroundings is Riverside Drive (+1.3m AHD), which is located some 20-30m from the river's edge, separating Langley Park from a narrow strip of river edge landscape.

It is not uncommon in winter, during high tide and storm events, for Langley Park and Riverside Drive to suffer from flooding. Terrace Road also experiences flooding.

The connecting roads from the city grid (Victoria Avenue, Hill Street, Bennett Street and Plain Street) all rise significantly to the north with Adelaide Terrace residing at around +9.0m AHD.







SITE – LAND USE

The Masterplan area is comprised of Langley Park and two foreshore areas all identified as public recreation and Reserved Parks and Recreation within the Metropolitan Region Scheme.

Government and cultural institutions are located to the west and north.

Terrace Road is comprised of predominantly high density residential, with some commercial and hotel land uses. The residences are an important neighbour to the Riverfront Masterplan area and require due consideration.

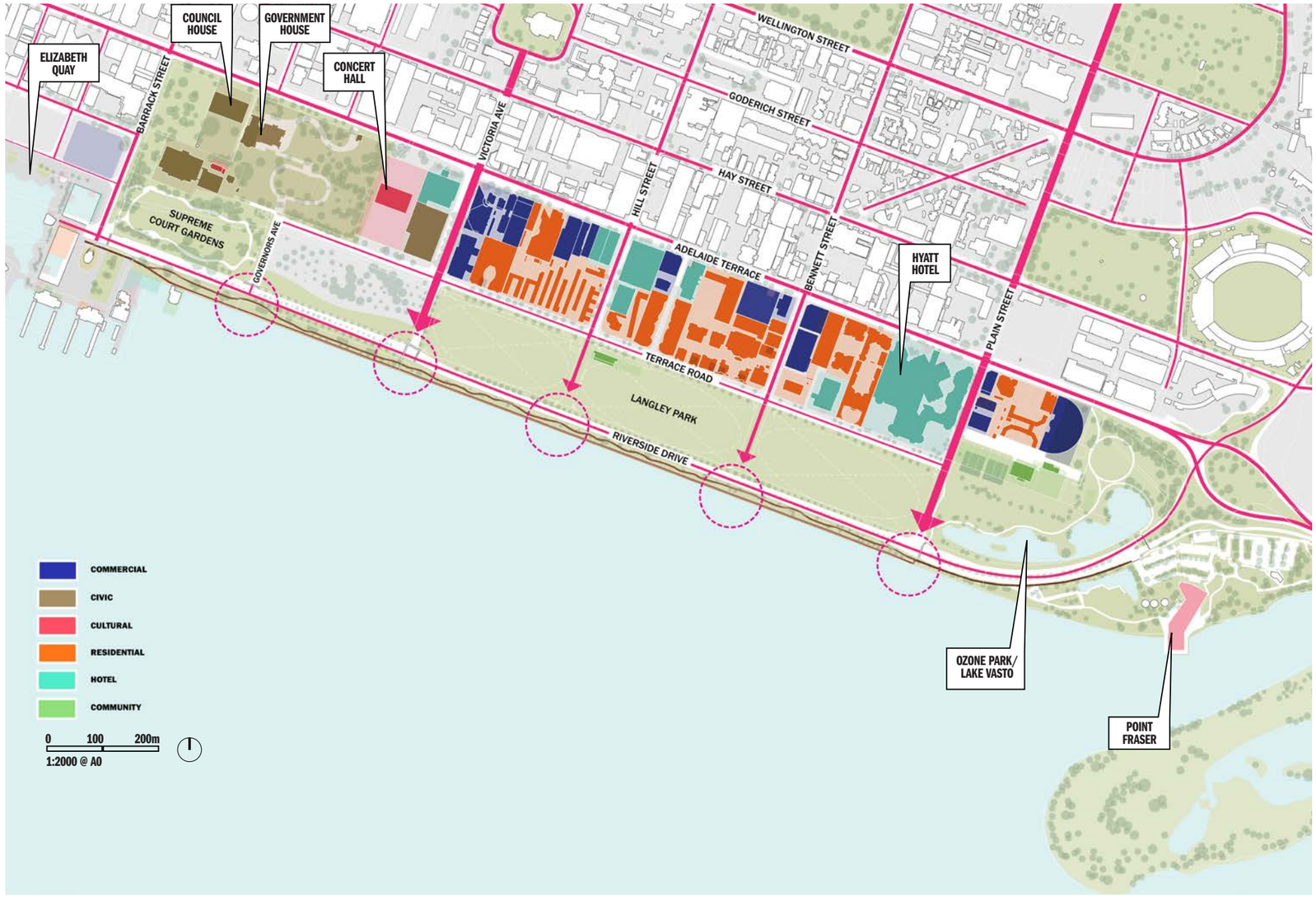
Point Fraser sits at the far end of the site, connecting with the new Causeway Pedestrian and Cycling bridges.

The Masterplan site is formally comprised of the following land uses,

Location	Address	Reservation	
Langley Park West, Langley Park Mid and Langley Park East	103 Riverside Drive, Perth	A Class	MRS - Parks & Recreation Reserve
Foreshore (Located between the Supreme Court Gardens and the WA Rowing Club Boatshed)	153 Riverside Drive, Perth	A Class	MRS - Parks & Recreation Reserve
Foreshore (Located between the proposed ACC site and the river)	151 Riverside Drive, Perth	A Class	MRS - Parks & Recreation Reserve

The following parklands surround the Masterplan:

Location	Address	Reservation	
Terrace Road Car Park (Proposed ACC site)	165 Terrace Road, Perth	A Class	MRS - Public Purposes - Car Park
Supreme Court Gardens	2 Barrack Street. Perth	A Class	MRS - Parks & Recreation Reserve
Point Fraser Reserve	21 Riverside Drive, Perth	C Class & A Class	MRS - Parks & Recreation Reserve and Primary Regional Roads
Ozone Park and Lake Vasto	1 Adelaide Terrace, Perth and 50 Riverside Drive, Perth	C Class & A Class	MRS - Parks & Recreation Reserve, Primary Regional Roads and Other Regional Roads



SITE – ACTIVATION LEVELS

The Masterplan work has utilised data analytics information from Place Intelligence to communicate the main conclusions regarding activation and dwell times at the Riverfront.

The heat maps on this page show comparative usage from low to high from mobile phone data (excluding people in vehicles). It is clear that the Riverfront has low activation levels compared to other parts of the city. This reinforces the Public Life Study work undertaken previously by the City of Perth.

For comparison, heat maps have been produced for the Brisbane South Bank Riverfront. It is evident that the introduction of well connected leisure attractions and food and beverage outlets creates higher levels of activation, which further support the increased usage of the parkland areas of the Riverfront. It also indicates that by not having a road directly adjacent to the river, space can be created for the types of experiences which are attractive for people to visit.

The weekend versus midweek visitation numbers comparison between Perth (19 to 15M) and Brisbane (8 to 7.7M) shows that Brisbane has less of a drop off in activation at the weekend. It may be that the activation of the Brisbane waterfront draws people into the city at the weekend.



It is evident there are low activation levels at the Riverfront when compared to the rest of the CBD. This is consistent when comparing January/July data and Saturday/Wednesday data.

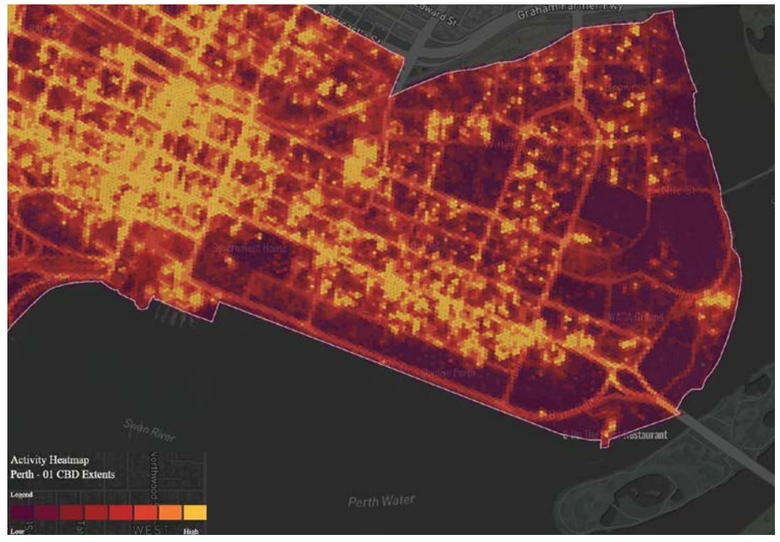


Wednesday



Saturday

In Perth CBD there is a 25% drop-off in hours spent from 19million mid-week to 15million at the weekend. Significantly less people are visiting the city at the weekend.



Perth CBD activation levels - 2023, entire year



Perth CBD activation levels - 2023, January



Perth CBD activation levels - 2023, July



Perth CBD activation levels - 2023, Saturday - average throughout the year



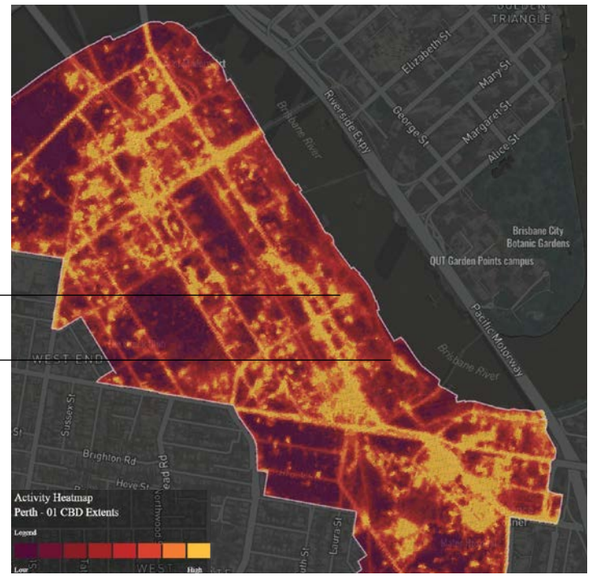
Perth CBD activation levels - 2023, Wednesday - average throughout the year



Streets Beach South Bank Parklands

Restaurants

Brisbane South Bank maintains elevated riverfront activation levels throughout the year with more weekend patronage than during the week. The restaurants and Streets Beach draw people to the riverfront parklands.



Brisbane CBD activation levels - 2023, entire year

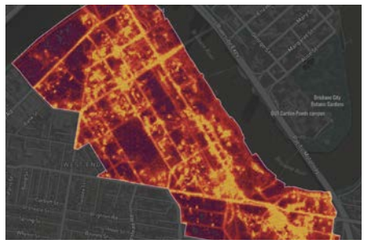


Wednesday

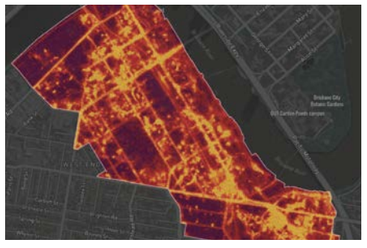


Saturday

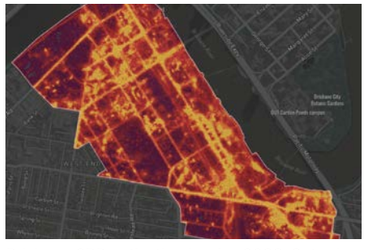
In Brisbane CBD there is a less of a drop-off in hours spent from 8million mid-week to 7.7million at the weekend. This may be due to people being attracted to the city at the weekend.



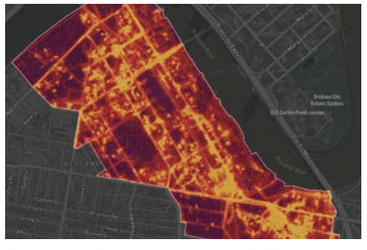
Brisbane CBD activation levels - 2023, January



Brisbane CBD activation levels - 2023, July

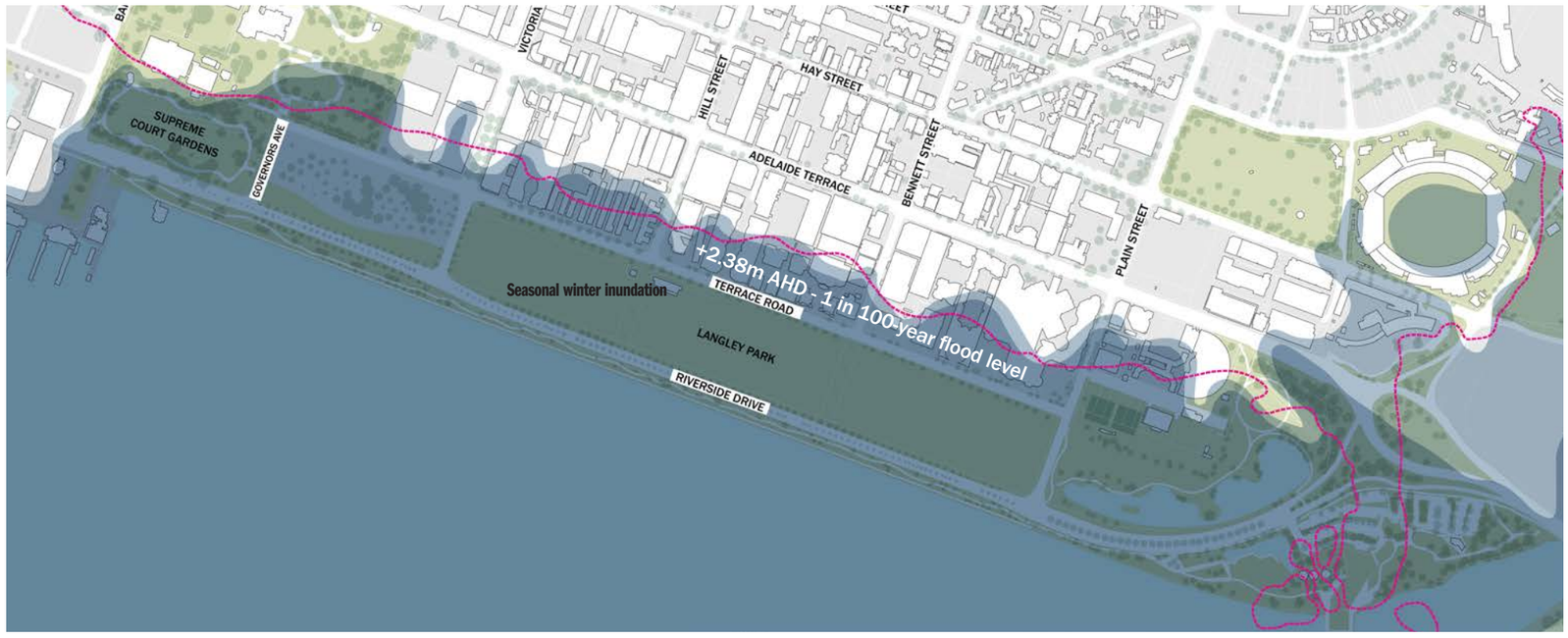


Brisbane CBD activation levels - 2023, Saturday - average throughout the year



Brisbane CBD activation levels - 2023, Wednesday - average throughout the year

SITE – RIVER LEVELS AND FLOODING



The Riverfront within the centre of Perth is in a vulnerable position. Langley Park and the current river's edge are reclaimed from the river. The river edge was originally located north of Terrace Road. Langley Park sits at a level of around 1.0m AHD with the river wall and adjacent pedestrian paths at a similar level.

The 1 in 100-year flood level is approximately 2.38m AHD. Minimum finished floor levels for occupied buildings will need to be above this level.

The river's edge, Riverside Drive, car parks and Langley Park all suffer from storm inundation and flooding during inclement climate and high tide events. The existing drainage pipe network sits too low and is prone to backing up, resulting in Terrace Road flooding when river levels are high and there are high levels of CBD catchment run-off.

Climate change analysis is anticipating a rise in river levels within Perth Water by approximately 0.7m by 2100.

The Masterplan creates a structure for the Riverfront to work through these issues of coping with flooding, periodic inundation and future river level rises. There will need to be a balance between the protection of assets alongside creating space for water and landscape to work in closer harmony. Some areas of the Riverfront will be designated for periodic inundation. These will be expansive areas of planting, the large lawn spaces as well as the wetlands.

Further technical work (beyond the scope of this Masterplan report) will be required during the next stages of design.

There will need to be a holistic review of the management of river levels throughout the catchment, from the estuary at Fremantle to upstream areas of the Swan River Plain.





SITE – EXISTING UTILITIES

There are a range of existing utilities which occur along the Riverfront site. Many of these will seek to be retained in situ with easements respected. Some utility corridors and capacity levels will require upgrading to address the requirements of new developments, such as at the Aboriginal Cultural Centre and within the identified high amenity activation nodes along the river, as well as within the parkland.

In some cases there will be a requirement for a re-routing of the utilities such as the Telstra communication and ATCO ATG gas pipes, as they are impacted by the re-modelling of the river edge.



4. THE OPPORTUNITY



DEFINING THE VISION

The Riverfront Masterplan takes the opportunity to establish a truly transformative vision. The engagement, analysis and design process undertaken by the City of Perth's team has resulted in the desire for substantial and ambitious change for the Riverfront. There is a clear opportunity to develop a substantial shift in how this important city space works within its environment to the benefit of the local community, visitors and native wildlife.

The opportunities are clear:

- Allow people to better engage and connect with the river.
- Improve Riverfront connectivity with the city.
- Celebrate Whadjuk Noongar culture and the recent history of the place.
- Facilitate a wide range of leisure activities.
- Infuse the Riverfront with nature.
- Significantly increase urban tree canopy.
- Showcase WA wildflowers.
- Promote activation throughout the day/week/year for all demographics and cultures.
- Facilitate appropriate development opportunities to support the tourism and hospitality sectors.
- Improve comfort levels and dwell time.
- Integrate a natural systems approach to green infrastructure design with a focus on improving water quality levels and supporting biodiversity levels.
- Ensure a re-shaped Riverfront is robust, resilient and has reasonable maintenance obligations.
- Create an overall healthy place to live, work and play.

The Masterplan vision statement allows the objectives and opportunities inherent in the Riverfront Masterplan to be understood.

The design principles on the following pages establishes further guidance to inform the Masterplan design.



A LOCAL & INTERNATIONAL DESTINATION



A PLACE TO CONNECT WITH NATURE



ACCESSIBLE, INCLUSIVE & ATTRACTIVE SPACES

VISION STATEMENT

'THE MASTERPLAN FOR THE PERTH CITY RIVERFRONT PROVIDES A FRAMEWORK FOR RE-CONNECTING PEOPLE AND THE CITY WITH THE RIVER. IT WILL BE AN ACTIVE AND ATTRACTIVE RIVER PARK DESTINATION FOR EVERYONE. INFUSED WITH NATURE, BIODIVERSITY AND CULTURE IT WILL BE A WORLD CLASS CITY PARK, A KEY PART OF SWAN RIVER LANDSCAPE EXPERIENCE.'

Hassell ©

DESIGN PRINCIPLES – PLACE

The Masterplan is underpinned by three guiding design principles. These are,

- **Place**
- **Environment**
- **Movement**

To establish a new Masterplan vision each of these over-arching principles is to be considered through the lens of creating a truly regenerative design vision for the Riverfront.

Place, environment and movement principles combine to reinforce the importance of regenerating the Riverfront in tune with the sensitivities of the natural world, community wellness and culture and establishing sound and sustainable methods of movement, design and ongoing energy use.

PLACE

The Riverfront Masterplan must consider the creation of a successful place. This means establishing the framework for the area to develop in line with how the community may wish to use the space, reflecting well-being, activation and culture. It must also consider how inviting, legible and comfortable the place is.

This Masterplan is driven by the creation of a Riverfront which is highly activated, yet feels seamlessly in tune with the natural environment. The design principles shown on this page have been workshopped with the City to ensure place considerations are at the forefront of the Masterplan thinking.

PLACE















DESIGN PRINCIPLES – ENVIRONMENT

Environment

It is clear that the Riverfront and in particular Langley Park can contribute much more as a public open space situated along the Swan River.

Environmental design principles focus on re-balancing the relationship between natural processes, usable open space and considerations of activation, cost and maintenance.

The river edge can be naturalised using bio-engineering techniques with as much native riparian planting species as possible. There is the opportunity to significantly increase the urban canopy through planting of native trees. The ground plane can be enriched with a layering of native plants showcasing Western Australian wildflowers and boosting biodiversity.

The emphasis on environment leads to the integration of enhanced natural systems design, in particular the integration of constructed wetlands which will clean and attenuate storm water before it enters the river.

Native planting throughout the Riverfront at scale will provide a significant increase in the creation of habitat for local wildlife. The attractiveness of the Riverfront for insects, birds, animals and river life is critically important.

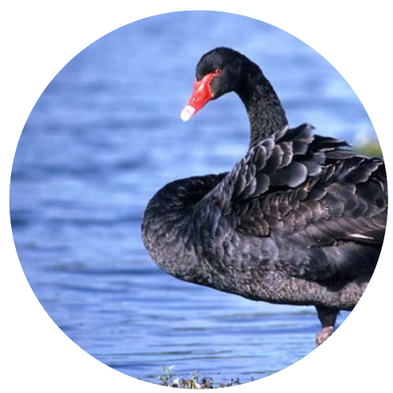
Reduction in lawn area is also a key design principle, as the Masterplan seeks to re-balance nature amongst high intensity sports and events programming. Reduced lawn area leads to less water and fertiliser use, as well as less onerous maintenance requirements.

ENVIRONMENT







DESIGN PRINCIPLES – MOVEMENT

Movement

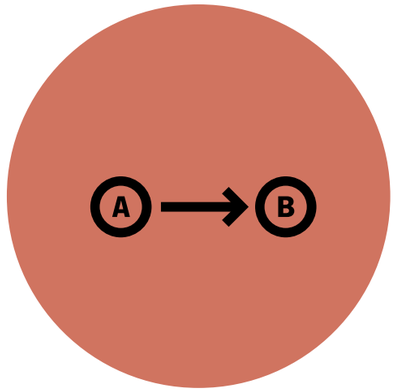
Establishing a hierarchy of varying methods of movement through and to the Riverfront is critical to the area's success. The context should be acknowledged with the pedestrian and cycling paths connecting to the extensive river edge network, city grid, new Causeway Bridges and through to Elizabeth Quay. The creation of an improved walkable and active transport experience for people along the river, as well as through the heart of the parkland, drawing people in from the neighbourhood and the open space's edges is essential.

The Masterplan seeks to facilitate an important expansion in the public transport network. The retained and re-aligned roads accommodate the expansion of CAT and other PTA bus routes. Accompanying this is a desire for an increase in the use of the river with private and public ferries being facilitated at jetties along the river edge.

The Riverfront will continue to accommodate private motor vehicles to access the new destinations, as well as the neighbouring residential and commercial properties and cultural institutions.

The Masterplan is seeking a balanced outcome, where it is acknowledged vehicle use will continue but perhaps on a downward trajectory as the years go by, with public and active movement choices increasing.

The ideal outcome is a Riverfront which is active, feels welcoming and removes the feeling of how daunting it currently is to walk the full extent of the river edge path. The Masterplan encourages health and wellness through active movement through its connections and activation strategies.



MOVEMENT















KEY MOVES

Six key moves underpin the design of the Masterplan. When combined they will establish the structure, look and feel of Perth's new Riverfront.

RE-IMAGINING THE RIVER EDGE

- THE RIVER EDGE IS RE-SHAPED WITH PLANTING, HEADLANDS, BEACHES, BOARDWALKS AND TERRACING.
- A WINDING, CONTINUOUS RIVER WALK CREATES A DYNAMIC AND CULTURALLY RICH EXPERIENCE.
- THE EDGE CONDITION IS ROBUST, SET AT A LEVEL TO PROTECT INFRASTRUCTURE WHILE ALSO SUPPORTING RIVERINE ECOLOGIES.

RIVERSIDE DRIVE RE-ALIGNED

- THE ROAD IS TO BE NARROWED TO ONE LANE IN EACH DIRECTION AND RE-ALIGNED TO CREATE MORE USABLE AND SAFER SPACES BY THE RIVER.
- MOVING THE ROAD CREATES THE SPACE NEEDED TO ACHIEVE A MORE NATURALISED RIVER EDGE.
- THE ROAD CAN BE RE-IMAGINED AS MORE OF A TOURIST DRIVE INTEGRATING PEDESTRIANS, BUSES, CYCLE LANES, CARS, TREES AND BIO-SWALES.

DESTINATION ATTRACTION

- 'THE LAGOON' IS A MAJOR NEW OUTDOOR CITY LEISURE ATTRACTION.
- CAFÉS AND RESTAURANTS SUPPORT THE FACILITY.
- THE ATTRACTION IS INFUSED WITH LOCAL LANDSCAPE AND CULTURE.
- PUBLIC MOORING AND FERRY JETTY IS PROPOSED.
- PEOPLE CAN ARRIVE BY FOOT, BUS, BIKE, E-SCOOTER, BOAT OR CAR.

CONNECTING TO THE CITY

- TREE LINED PEDESTRIAN BOULEVARDS CONNECT PEOPLE FROM HILL STREET AND BENNETT STREET.
- THE BOULEVARDS ARRIVE AT HIGHLY ACTIVATED NODES AT THE RIVER EDGE.
- THE RIVER EDGE NODES ARE SPACED AT COMFORTABLE WALKABLE DISTANCES.
- THE BOULEVARDS HELP TO ESTABLISH A MORE ATTRACTIVE, COMFORTABLE AND LEGIBLE PARKLAND EXPERIENCE.

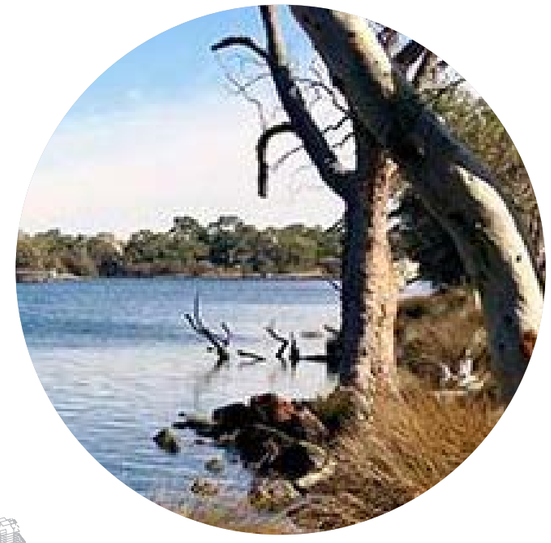
RIVERFRONT IN NATURE

- THE MASTERPLAN RE-FRAMES LANGLEY PARK'S CONTRIBUTION TO NATURE AND BIODIVERSITY.
- WETLANDS CLEAN AND ATTENUATE STORM WATER IMPROVING RIVER WATER QUALITY.
- NATIVE TREES AND PLANTS CONTRIBUTE TO SENSE OF PLACE, SUPPORT LOCAL WILDLIFE, RECOGNISE WHADJUK NOONGAR CULTURE AND COOL THE CITY.
- RIVER EDGE ECOLOGIES ARE SUPPORTED VIA RIPARIAN PLANTING AND RE-SHAPED EDGE CONDITIONS.

THINGS TO DO!

- THE MASTERPLAN CREATES THINGS TO DO IN THE PARK TO ATTRACT PEOPLE AGAIN AND AGAIN.
- AN ALL AGES PLAY EXPERIENCE IS PROPOSED.
- RANGE OF FOOD AND BEVERAGE DESTINATIONS.
- EVENING ACTIVATION AND DURING WINTER.
- CELEBRATE CULTURE THROUGH PUBLIC ART.
- COMMUNITY SPORTS AND EVENT SPACES.
- RANGE OF COMFORTABLE LANDSCAPE SPACES.
- AMENITIES APPROPRIATELY PROVIDED.

KEY MOVES
RE-IMAGINING THE RIVER EDGE



The existing, linear river wall is bland and structurally failing. It requires replacing and there is an opportunity to significantly re-think how this is achieved.

The river edge is an important touch point between land, water, people and fauna. The Masterplan is seeking to re-imagine this condition by introducing a range of techniques which promote people's connection to water and enhanced river ecologies, while ensuring the outcome is robust and resilient to storms.

A key move is to change the form of the river edge by varying its alignment. This will create interest and pause points for people as they move along the river. It also facilitates the creation of headlands and beaches which require angled alignments to ensure their stability.

The river edge will combine treatments which reflect an urban condition, as well as long stretches of naturally planted zones. Urban character treatments are located closer to the western end as the Riverfront transitions to Barrack Square. The activation nodes will also incorporate urban treatments such as cut stone terracing, boardwalks and jetties.

Wide planted edges will also be integrated, combined with limestone headlands, rock pools and appropriately scaled beaches. These areas will be supported by appropriately scaled amenity lawns to encourage activation, as well as public art and cultural features such as the arbour.

There will be a culturally dynamic and artistic, continuous river edge walk themed on Whadjuk Noongar culture. Trees will be planted extensively along the river edge to establish as much shade as possible.

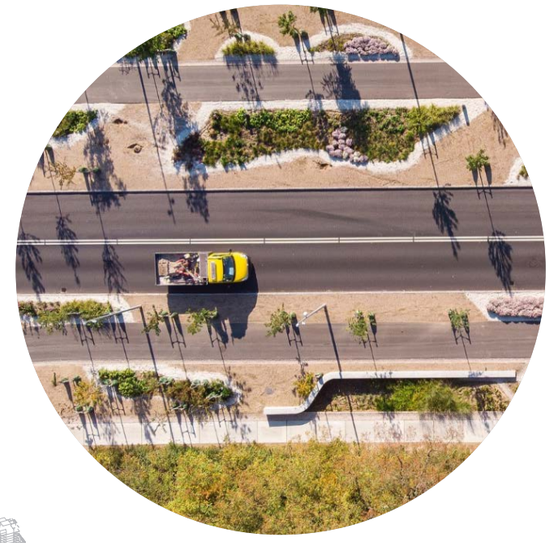








KEY MOVES
RIVERSIDE DRIVE RE-ALIGNED



Riverside Drive is a significant barrier for people wanting to safely and comfortably move from Langley Park to the Riverfront. The four lane, medianed road has established a high speed environment, designed to move vehicles effectively as a regional distributor from the Causeway to Mounts Bay Road. The development of Elizabeth Quay has meant the road has become less attractive to drivers for this route with traffic levels having seen a decrease by approximately 60% in recent years.

The road currently creates a narrow and constrained strip of land between its western direction carriageways and the river wall (20-30 metres). This constrains the potential introduction of a more naturalised river edge, and creation of activation spaces of significant scale. Crossing the road can be dangerous, especially for young children and the elderly.

A key move of the Masterplan is the re-alignment and downgrading of Riverside Drive. It will be re-imagined as more of a slower 'tourist drive' which accommodates local traffic while promoting use by public transport, with cyclists and e-scooters along its accompanying shared path.

The increased space at the river edge, created by the bending of the road through the central section of Langley Park establishes both the creation of a large riverside park and potential development space for a landmark attraction. By maintaining the road it will also support reasonable levels of traffic use on neighbouring roads, such as Terrace Road.

This re-alignment is a key move for the Masterplan as the Riverfront seeks to significantly improve its connection for people with the Swan River.









KEY MOVES
DESTINATION ATTRACTION



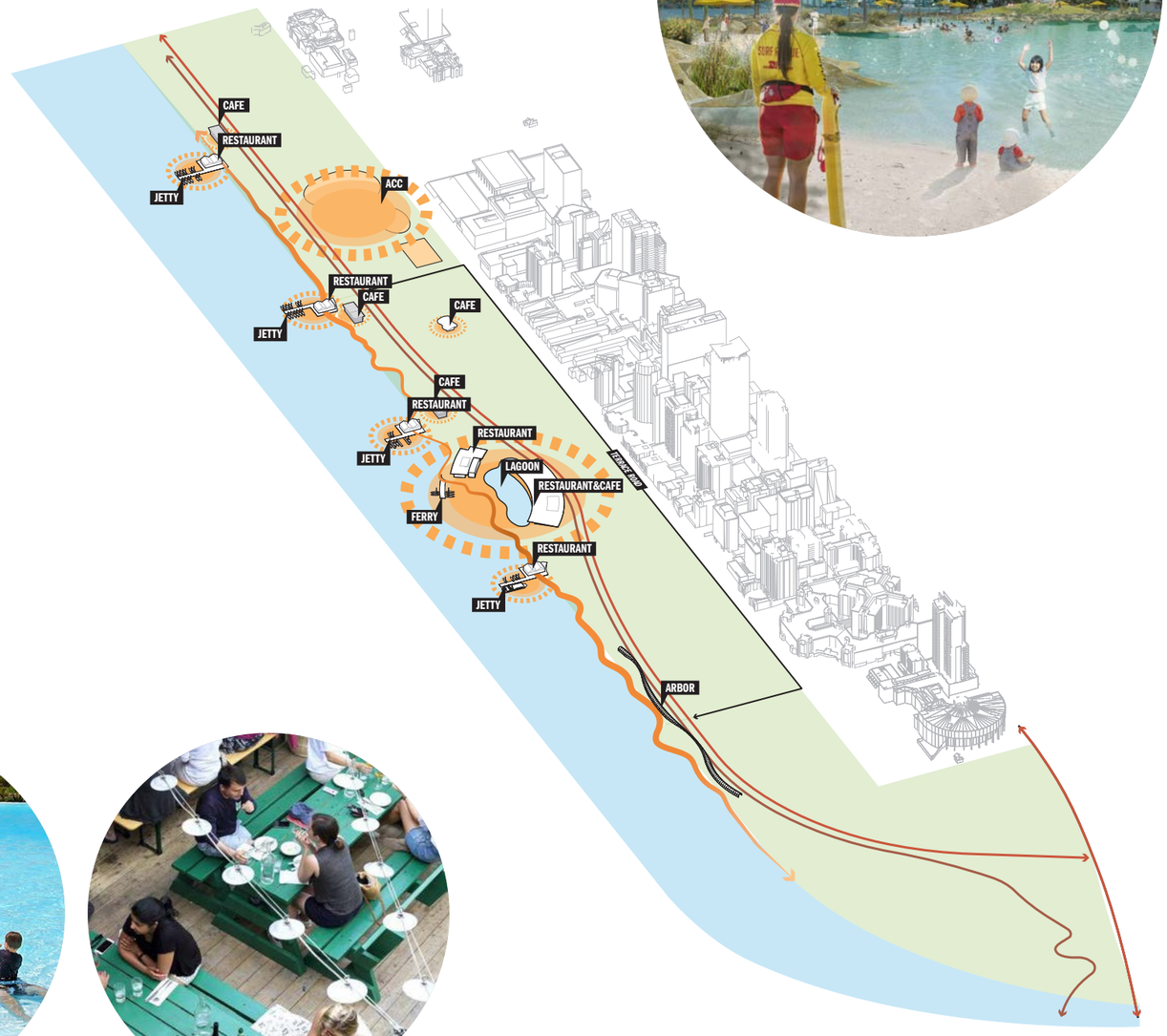
As Perth continues to grow and more people choose to live in the city there is an opportunity for the Riverfront Masterplan to integrate a significant attraction for locals, as well as visitors. The 12 hectares of open lawn at Langley Park has the capacity to position an appropriate destination attraction, one which celebrates the environment and offers an opportunity for people to enjoy Perth's Mediterranean climate.

In the heart of Langley Park, positioned strategically between the proposed Aboriginal Cultural Centre (ACC) and the Point Fraser development, is The Lagoon development. This is an outdoor leisure experience for families to enjoy a safe and controlled water experience while being in close proximity to the river. The Lagoon can include a beach with a variety of hang out opportunities and be supported by an inviting offering of food and beverage outlets.

The Lagoon is proposed to be publicly accessible. It is important that the development celebrates the local environment. There will be a celebration of Whadjuk Noongar culture, as well as native trees, planting and wildlife.

To support the commercial feasibility of The Lagoon a submerged parking structure is proposed north of the re-aligned Riverside Drive. Two levels of parking are hidden by a roof top garden which seamlessly links with the surrounding parkland.

There are many successful precedents for the inclusion of a facility such as this in an urban environment. The Masterplan anticipates this aspect of the Riverfront to be developed following the appropriate level of commercial due diligence.









KEY MOVES
CONNECTING TO THE CITY



To establish improved urban connections from city to river two new pedestrian spines are created. These extend from Hill Street and Bennett Street. They reinforce the view corridor south from these streets to the river. They also comfortably break up the 12 hectares of Langley Park lawn into three spaces which are more comprehensible and comfortable in scale.

These pedestrian connections establish activated edges to the Masterplan precincts. They are a human scaled landscape experience, with multiple rows of native trees and WA wildflowers providing seasonal interest and a shaded route to the river.

They terminate at activated river edge nodes which are spaced at a comfortable 4-5 minute walk along the river. The nodes include a jetty, landmark public art and food and beverage outlets.

The Masterplan also proposes upgrades to the surrounding streets with wider pavements, revitalised tree planting and rationalisation of on street parking.









KEY MOVES
RIVERFRONT IN NATURE



The Masterplan proposes a significant shift in the landscape character of the Riverfront. To establish a park which integrates natural systems, creates a high quantum of biodiversity and habitat, drives forward the City of Perth's urban canopy targets and is imbued with floral beauty and seasonal delight, a major new native planting programme is proposed.

Existing non-native trees will be phased out over time, to be replaced with newly planted species, reflective of the Swan River environment and aligned with State Government direction (DBCA planting guidelines). Tree canopy will be significantly increased across the Riverfront.

Extensive water-wise native planting will showcase WA flora and create a strong connection to country and Whadjuk Noongar culture.

Two significantly scaled constructed wetlands provide spaces imbued with beauty and create a haven for wildlife.

The river edge will integrate as much native sedge planting as possible to naturalise the condition and support riverine ecologies.

The end result of this change will be a re-balancing of the Riverfront's relationship with the natural world. A landscape will be created which is more in harmony with its environment.









KEY MOVES
THINGS TO DO!

The Masterplan proposes a wide range of activation opportunities, of varying character, to entice all types of people to pay multiple visits to the Riverfront.

Currently the Riverfront is poorly used throughout the day and into the evenings. Night time activation opportunities will be focussed around the range of food and beverage outlets, as well as the retained capability of supporting programmed events.

Sports and play are accommodated by the large open lawns and multi-themed large scale play spaces. Looping jogging trails are included.

There will be opportunities to spend more time on the river via boating and windsurfing.

The plan provides for experiencing the natural world, connecting physically with the river, as well as spending time in the parkland setting, enjoying family BBQs and the more relaxed pursuits of simply hanging out and taking long walks.









5. THE MASTERPLAN

THE MASTERPLAN

The Riverfront Masterplan represents a truly transformative framework for the future of Perth. The 44 hectare, 2.2km long site will be transformed into a place full of life, culture and nature. It will provide a high range of activation opportunities while still working in tune with the natural environment. It will be an exciting front garden for local residents and a must-do destination for visitors and tourists.

The Masterplan is articulated as five distinct, but not exclusive, precincts. Each broadly themed precinct articulates its strongest attribute.

The following pages illustrate the Masterplan and showcase its key features.



Elevated view from Precinct 1 looking east



PRECINCTS

Five precincts define the Riverfront Masterplan. Structured via the extended city grid, each precinct has a headline character which relates to its context or main activation strategy.

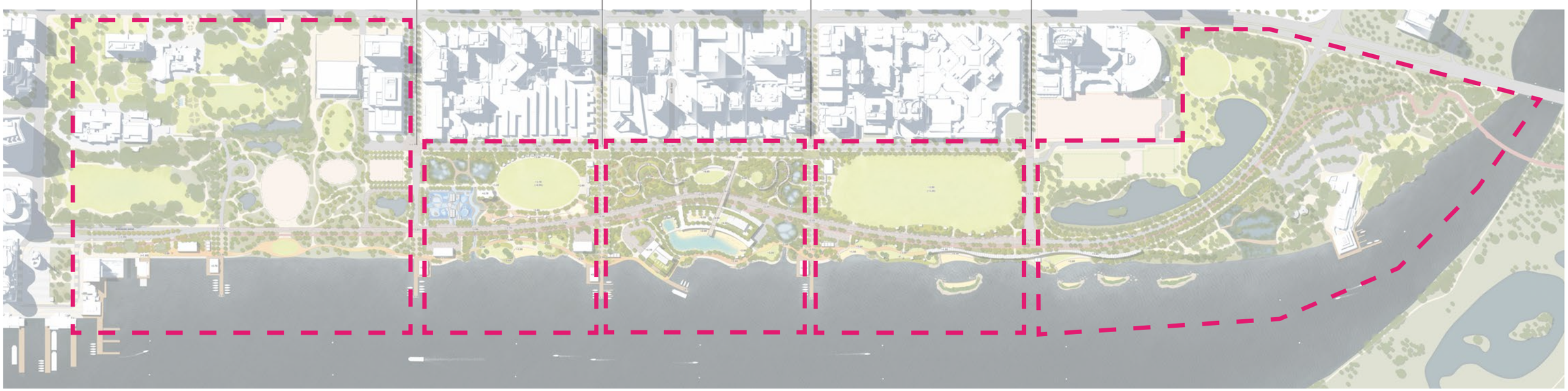
Precinct 1
The Cultural Precinct

Precinct 2
The Play Precinct

Precinct 3
The Leisure Precinct

Precinct 4
The Event Precinct

Precinct 5
The Ecology Precinct



Hassell ©

PRECINCT 1 – THE CULTURAL PRECINCT

The westernmost precinct is the connector piece to the established Supreme Court Gardens, Perth Concert Hall and Government House. It is also crucially the area which will integrate with the proposed Aboriginal Cultural Centre. This development will be infused with country and stories representative of Dyeedyallalup and the Derbal Yerrigan.

The Masterplan in this precinct is focussed on the river edge from Barrack Square to the Victoria Avenue junction with Riverside Drive.

A revitalised river edge is proposed with a naturalised condition interfacing with the ACC. An urban treatment is proposed to upgrade the river walk between Governors Avenue and Barrack Square. Two significant food and beverage developments are proposed activating river edge terracing and a new jetty. Riverside Drive is downgraded to two lanes as it merges towards the ACC site.

LEGEND

01 – Supreme Court Gardens
02 – Government House
03 – Aboriginal Cultural Centre (ACC)
04 – Perth Concert Hall
05 – Development opportunity
06 – Service/parking access
07 – ACC drop off and service access
08 – Pedestrian crossing
09 – Terracing to the river
10 – Food and beverage opportunity with servicing and DDA parking
11 – Jetty and restaurant
12 – Small food and beverage/retail outlets
13 – Naturalised river edge
14 – Riverside cultural walk
15 – Riverside Drive downgraded to single lane each direction. Shared path aligned on existing westbound lanes

+1.90 - approximate proposed level (tbc)
(+1.30) - existing level



PRECINCT 2 – THE PLAY PRECINCT

The Masterplan design between Victoria Avenue and Hill Street integrates a range of play experiences and supporting amenities within a refreshed landscape infused with nature. Upon arrival from the corner of Victoria Avenue and Terrace Road visitors to the Riverfront will be drawn through a storm water cleaning wetland along winding boardwalks.

A cafe is positioned at the heart of the precinct at the knuckle point of the wetland, a major new play experience and an oval. The cafe 'in the round' ensures good surveillance for the varying landscape spaces.

The 300m long play zone is a major draw-card for the Riverfront. This is a multi-age play experience which integrates sports courts, skate and expansive nature play. Locating the playspace in this precinct leverages off the adjacent ACC and benefits from the Elizabeth Quay public transport hub.

An accessible path circulates the oval lawn, complemented by native tree and ground cover planting, shelter structures and BBQ spots.

To the south of the narrowed Riverside Drive is an expanded riverside environment. The water's edge is re-shaped to create activity lawns which can accommodate a high capacity of people at community event days and evening light/drone shows. The water's edge is re-shaped to include large expanses of native planting, robust limestone headlands, as well as cut stone terracing.

The Dyeedyallalup riverside walk strongly promotes a leisurely, environmental and cultural experience, showcasing Whadjuk Noongar stories. There is an opportunity for the Dyeedyallalup walk to reflect the spirit of the Waugyl, the importance of water, plants and animals, as well as stories relating to clay and ochre deposits. The character of the pathway can be strengthened by the use of interpretive patterns and pigments; white (djardak), red (mirda) and yellow (yoont).



Precinct 2 view, eastwards across the wetland to the cafe and play spaces

PRECINCT 2 – THE PLAY PRECINCT

LEGEND

01 – Traffic calmed junctions
02 – Streetscape upgrades with wider pavements and tree planting
03 – Constructed wetland with boardwalks and native planting
04 – Central parkland walkway
05 – Multi-sport courts
06 – Shelter hubs
07 – Skate park
08 – Cafe/WC and al fresco deck
09 – Sports/events lawn
10 – Nature play
11 – Jetty and restaurant
12 – Food and beverage opportunity with servicing and DDA parking
13 – River edge lawns, planting and headlands
14 – Riverside cultural walk
15 – Riverside Drive downgraded to single lane each direction. Road re-aligned to create space by the river. Shared path aligned on existing westbound lanes.
16 – Tree lined pedestrian connection
17 – Beach
18 – Small food and beverage/retail outlets
19 – Landmark pine trees retained

+1.90 - approximate proposed level (TBC)
(+1.30) - existing level



PRECINCT 3 – THE LEISURE PRECINCT



Elevated Precinct 3 view, looking south-eastwards across the rising boardwalk and The Lagoon

Precinct 3 is the most ambitious in terms of change in use of the Riverfront. To support a growing population and offer further opportunities for leisure activities for visitors and tourists a major new destination attraction is proposed.

A dynamic leisure precinct provides a range of outdoor experiences. The Lagoon is a water based experience which is safe and comfortable for families to enjoy. It is envisaged that The Lagoon leverages the best of the Perth climate and celebrates the local natural environment. The Lagoon is itself positioned close to the river edge yet protected via the Dyeedyallalup river walk. Food, beverage and retail outlets support the facility. A 2 level car park is proposed under a parkland north of the re-aligned Riverside Drive.

People are invited to traverse the roof of the car park via rising boardwalks which wind up through a re-imagined West Australian landscape. The integration of a new topography will add interest to Langley Park, which is currently a single flat plane. A wetland is integrated to the east, cleaning and attenuating rainwater from the Bennett Street catchment.

This precinct benefits from active edges, established by the pedestrian spines extended from Hill Street and Bennett Street. These are tree lined, wildflower filled, human scale experiences which make the journey from the city to the river a more pleasurable experience.

The vista to the river is respected and there is an opportunity to further entice people to the river edge with the establishment of activation nodes integrating jetties, private boat and public ferry moorings, cafés, restaurants, as well as landmark public art.

This precinct is infused with a major layering of native plants at the river's edge, throughout the ground plane, on the podium of the car park, the roof gardens for The Lagoon buildings and through the planting of hundreds of trees.

The Dyeedyallalup river walk carries on its journey through the precinct, winding its way to create a diverse and culturally rich landscape experience.

PRECINCT 3 – THE LEISURE PRECINCT

LEGEND

01 – Traffic calmed junctions
02 – Streetscape upgrades with wider pavements and tree planting
03 – Wetland with boardwalks and native planting
04 – Central parkland walkway with elevated bridge connection to rooftop parkland
05 – WA wildflower and urban forest planting
06 – Shelter hubs
07 – Rooftop parkland over carpark
08 – Pedestrian bridge
09 – Ground plane pedestrian connections
10 – The Lagoon attraction with food and beverage terrace and beach
11 – Jetty and restaurant
12 – Food and beverage opportunities with roof top activation - including potential site for tourist accommodation
13 – River edge lawns, planting and headlands
14 – Riverside cultural walk
15 – Riverside Drive downgraded to single lane each direction. Road re-aligned to create space by the river. Shared path aligned on existing westbound lanes.
16 – Tree lined pedestrian connection
17 – River edge stone terracing
18 – Small food and beverage/retail outlets
19 – Landmark pine trees retained
20 – Jetty for public mooring and future ferry

+1.90 - approximate proposed level (TBC)
(+1.30) - existing level



Hassell ©

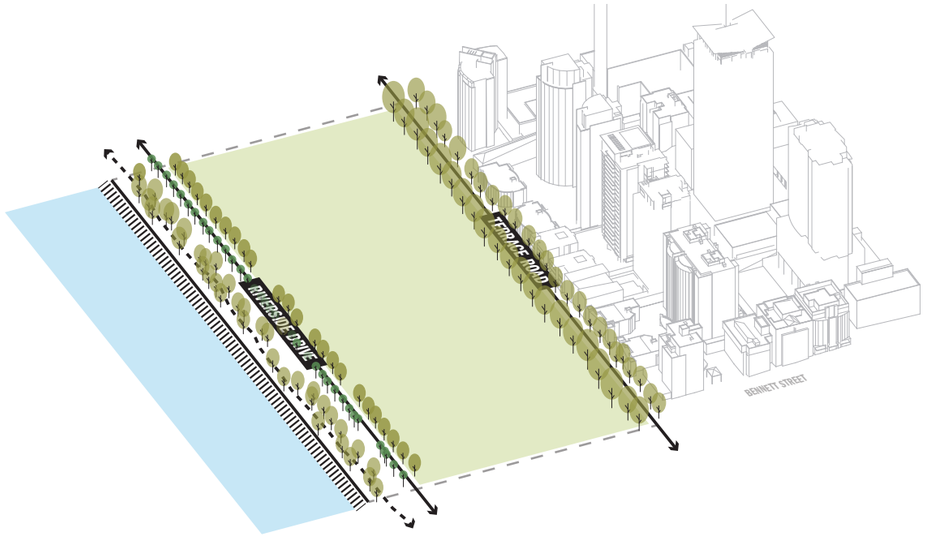
PRECINCT 3 – THE LEISURE PRECINCT

The Masterplan envisages a staged approach to the development of Precinct 3.

The key early move (no.2 opposite) is the re-alignment of Riverside Drive and the establishment of the pedestrian spines to form the landscape structure. This interim condition will be a significant improvement on how the Riverfront creates space and attracts people to the water's edge. It will allow the re-shaping of the river edge condition, establishment of the Dyeedyallalup river edge walk and the integration of a significantly transformed native landscape experience.

Stages 3 and 4 can be developed following the appropriate feasibility and business case work. Stage 3 defines The Lagoon. Stage 4 proposes activated river edge nodes with food and beverage offerings, jetties and a potential tourist accommodation facility.

1. Existing condition



2. Riverside Drive re-alignment/pedestrian spines/river-edge



3. The Lagoon



4. Riverside nodes/tourist accommodation opportunity/jetties



Hassell ©

PRECINCT 3 – THE LEISURE PRECINCT



Precinct 3 view, looking east along the Dyeedyallalup river walk with The Lagoon shown on the left

PRECINCT 3 – THE LEISURE PRECINCT



Precinct 3 view, looking south along the Bennett Street pedestrian spine towards the river

PRECINCT 4 – THE EVENT PRECINCT

There will continue to be a requirement for Langley Park to support large scale events and community sports. The eastern lawn between Bennett Street and Plain Street is the key location for large scale concerts, festivals and showcase events.

The eastern lawn is retained as a space of 30,000m2 which can accommodate potentially 30,000 people for a concert and (dependent on the layout) 18,000 for an outdoor festival.

The eastern lawn will be fringed by a native garden margin. This facilitates the establishment of further urban tree canopy and water-wise native ground covers to support biodiversity.

To improve the durability of the event lawn through the wetter seasons the level will be raised by approximately 600mm.

South of Riverside Drive (as it re-connects with its current alignment) is a continuation of the Dyeedyallalup river walk and the re-shaping of the edge condition with naturalised plantings, headlands and a beach.

This area also incorporates the first of four habitat/breakwater islands which support bird-life, as well as calming the riverine condition to allow the establishment of beaches.

The 330m long arbour draws people into the Riverfront from the Point Fraser Ecology Precinct. The structure winds its way along the Dyeedyallalup river walk telling stories of Whadjuk Noongar people, place and animals. It will be a platform for an exciting lighting feature helping to celebrate Perth's status as the City of Light.



PRECINCT 4 – THE EVENT PRECINCT

LEGEND

01 – Traffic calmed junctions
02 – Streetscape upgrades with wider pavements and tree planting
03 – Event lawn and community sports
04 – Community changing rooms
05 – WA wildflower and urban forest planting
06 – Shelter hubs
07 – Dog park
08 – Development opportunity
09 – Beach
10 – Breakwater habitat islands
11 – Jetty and restaurant
12 – Arbour
13 – River edge lawns, planting and headlands
14 – Riverside cultural walk
15 – Riverside Drive downgraded to single lane each direction. Road re-aligned to create space by the river. Shared path aligned on existing westbound lanes.
16 – Tree lined pedestrian connection
17 – River edge stone terracing
18 – Small food and beverage/retail outlets
19 – Landmark pine trees retained
20 – Servicing, DDA and staff parking allocation

+1.90 - approximate proposed level (TBC)
(+1.30) - existing level



PRECINCT 5 – THE ECOLOGY PRECINCT

The two key design aspects of the Ecology Precinct revolve around how the re-shaped river edge walk and arbour connects with the Point Fraser ecology wetland and the future nature of Riverside Drive.

The Riverfront Masterplan river edge and arbour terminates at a connection with the established Point Fraser pathways. Additional habitat/breakwater islands are constructed in the river, helping to reduce the force of the water and allow river edge planting and beach conditions to be established.

Riverside Drive is reduced in capacity to a single lane in each direction and connects to a re-modelled Causeway junction. The Masterplan proposes that the Causeway junction be simplified, with the teardrop form removed and a simpler crossroads layout integrated within an expanded native landscape treatment. The slip-lane which connects the Causeway to Riverside Drive is removed. The existing vehicle access point to the Point Fraser development is amended with no reduction in parking capacity.

The existing shared pathway is re-aligned to connect with the new Causeway Pedestrian and Cyclist Bridges and to separate it from the more leisurely experience of the river edge pathways.



Precinct 5 view, looking west along the Dyeedyallalup river walk with a habitat island shown on the left

PRECINCT 5 – THE ECOLOGY PRECINCT

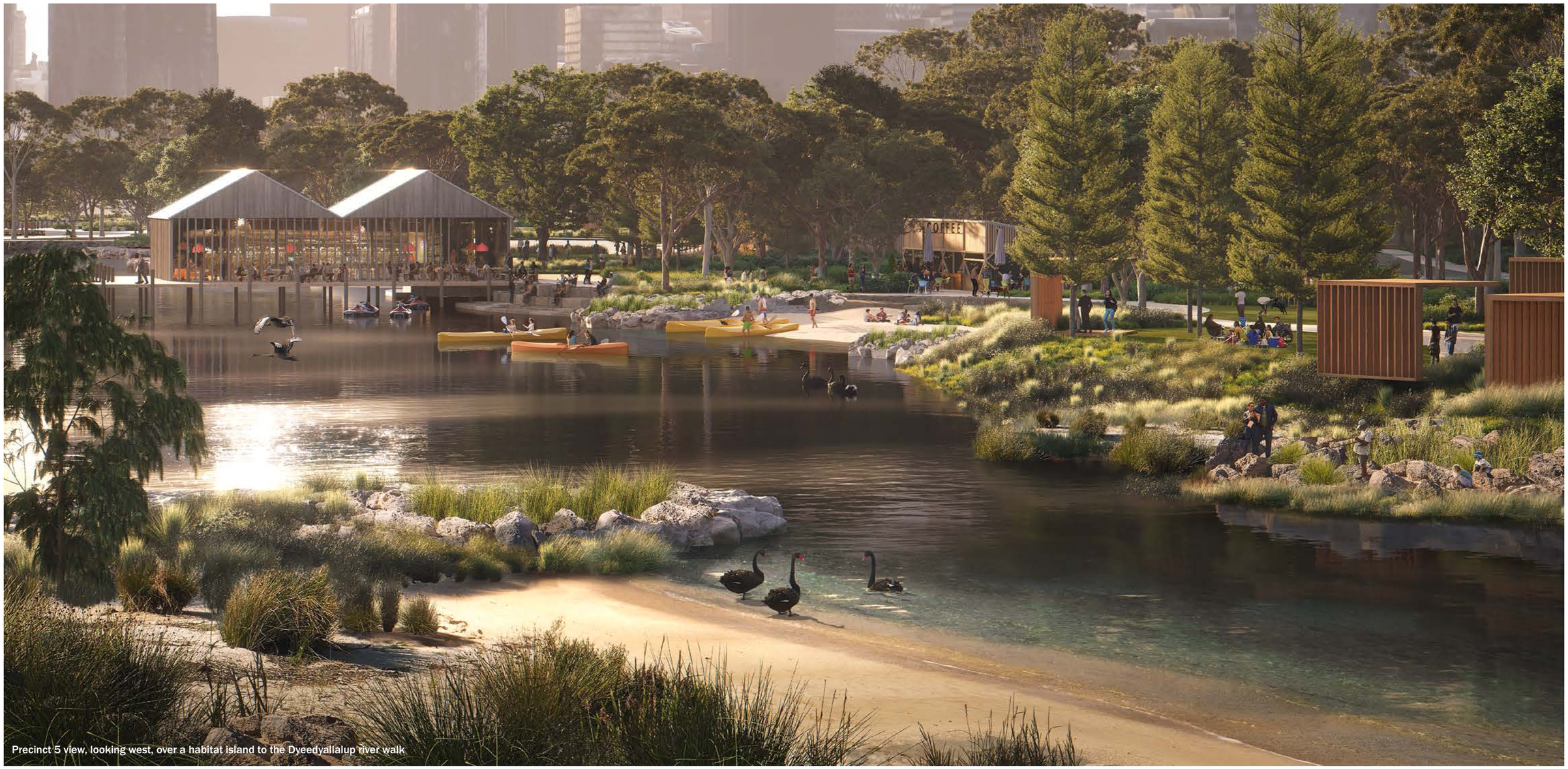
LEGEND

01 – Traffic calmed junctions
02 – Streetscape upgrades with wider pavements and tree planting
03 – Development opportunity
04 – Footbridge connection
05 – WA wildflower and urban forest planting
06 – Coffee outlet/toilets
07 – Dog park
08 – Lake Vasto
09 – Ozone Reserve
10 – Breakwater/habitat islands
11 – Riverside Drive downgraded to single lane each direction. Shared path re-aligned. Causeway slip lane removed.
12 – Re-shaped Causeway junction
13 – Beach
14 – Naturalised river edge
15 – Arbour
16 – Riverside cultural walk
17 – Point Fraser pathways
18 – Wetland and boardwalk
19 – Playground and toilets
20 – Bars and restaurants
21 – Parking and bus stop

+1.90 - approximate proposed level (tbc)
(+1.30) - existing level



PRECINCT 5 – THE ECOLOGY PRECINCT



Precinct 5 view, looking west, over a habitat island to the Dyeedyallalup river walk

6. STRATEGIES

STRATEGIES

A suite of design strategies, ranging from the experiential to the technical are embedded into the Masterplan.

The various strategies have been themed as per the Design Principles of **Place, Environment** and **Movement**. When combined together they form a comprehensive and regenerative Masterplan design.

It is important all the strategies are afforded a high degree of planning and design attention. The Riverfront Masterplan presents an holistic vision which therefore requires all strategic aspects to be considered with a high level of thought and resourcing through the project planning.

PLACE



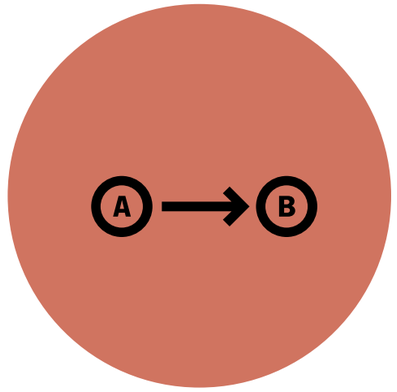
AN ACTIVATED PLACE – FOR EVERYONE
DYEEDYALLALUP RIVER WALK
BEING ON THE WATER
AMENITIES
EVENTS
PLAY
SPORTS
INTERPRETATION
PUBLIC ART
SAFETY AND INCLUSION
WAYFINDING

ENVIRONMENT



A CHANGING CLIMATE
WATER SENSITIVE CITY
URBAN GREENING – BIODIVERSITY
URBAN GREENING TREES
URBAN GREENING – PLANTING
ACID SULFATE SOILS
IRRIGATION

MOVEMENT



WALKABILITY
ACTIVE MOVEMENT
PUBLIC TRANSPORT
ROAD NETWORK
THE RIVER
PARKING
SERVICING

Hassell ©

AN ACTIVATED PLACE – FOR EVERYONE

The Masterplan envisages a place for the wide range of people who may wish to the use the area in very different ways. The 44 hectare, 2.2km long Riverfront is of sufficient scale to integrate a wide range of activation opportunities.

The open space analysis and community engagement work undertaken by the City of Perth has deduced that the Riverfront is severely under performing as an active open space resource, both for local residents and visitors to the city. With its position at the heart of the city it is clear the Riverfront should look to include more than parkland and paths. The Masterplan proposes a highly activated series of inter-connected experiences. These include,

- International quality destination attraction - The Lagoon.
- Multiple food and beverage outlets which bring life to the river edge, into the evening, throughout the week and in all seasons.
- Cultural spaces at multiple locations throughout the park and along the river's edge.
- A comfortable and leisurely river walk experience.
- Separation of cyclists and pedestrians.
- Mix of play spaces for a range of ages and abilities - from high energy sports and skate to a wide range of nature play and discovery experiences.
- High intensity programmed events on the large event lawns and at the river's edge.
- The experience of simply being in nature and taking in the views of the riverine environment.

One of the City of Perth Urban Greening Strategy key moves is ***Enhancing Our Green Open Space***. The Riverfront Masterplan supports this important aspect of the strategy by articulating a high quality public realm design. The City of Perth Open Spaces Study (2018) identifies the importance of the foreshore and Langley Park open spaces in the delivery of a resilient, robust and well designed Riverfront to realise its potential as an active capital city park.











DYEEDYALLALUP RIVER WALK

The 1.7km long Dyeedyallalup river walk is dedicated to the Whadjuk Noongar name associated with the Langley Park area of the Riverfront. It is a place which used to be an ecologically rich marshland environment with extensive reed beds and marine wildlife. It is also known for its ochre deposits, a traditional physical, spiritual and social well-being tool for Whadjuk Noongar people. Used for personal decoration, protection against the sun and insects, the ochre was also used to aid in the hunting of kangaroo and emu.

The Masterplan envisages a culturally rich river edge walk which winds and flows along the water's edge, taking in the views, immersed in nature. The existing straight river edge is removed. To create an interesting walking experience it is attractive to people to vary the orientation of the walkway.

The walk will be highly artistic and be full of cultural story telling. It will be colourful while emphasising the reds, whites and yellows of the ochre deposits.

Shade will be provided along the route via trees, shelter structures, the arbour and at the buildings at the activation nodes. Public art will enrich the route. Lighting will bring the walk to life at night. It will be a safe, inviting and comfortable experience. Seating, refreshment points and drinking water stations will be provided regularly.

The Dyeedyallalup river walk will be a vital component of the Perth Water (Buneenboro) experience. It will stitch together the experience for people who are wishing to spend the day exploring the Swan River from Kings Park in the west to Burswood Peninsula in the east.

All cultural aspects of the design will be developed in full collaboration with Whadjuk Noongar cultural elders and advisors.





BEING ON THE WATER

A important strategic objective for the Masterplan is to establish a condition where it is easier for people to connect with the water.

The key move of ***Re-imagining the River Edge*** facilitates this connection.

The removal of the dilapidated concrete wall allows a new range of edge conditions to be created which facilitates physical access to the water and a deeper spiritual connection with nature.

The Masterplan proposes a balanced mix of urban and more naturalised river edge conditions. The Riverfront is located in a transitional location between the urbanism of Elizabeth Quay and the re-naturalised wetland landscape of Point Fraser.

By combining features such as cut stone terracing, boardwalks, limestone headlands, beaches and wide expanses of predominantly Juncus Krausii reed beds, the interface between land and water will be transformed.

It will be a dynamic, more richer experience infused with nature, providing locations for people to paddle, swim, canoe, boat and fish in the water itself.





Towards the CBD and at the nodes an urban edge condition connects people with the water.



The river edge will adopt a nature positive response for large expanses of the water's edge.



Variety, interest and connection is provided with features such as beaches, headlands, terraces and the arbour.

AMENITIES

The Masterplan includes a range of strategically located amenities to support people's experience at the Riverfront.

The range of amenities include,

- Toilets
- Changing rooms/EOT facilities
- Shelters
- BBQs
- Cafés/coffee outlets
- Restaurants/bars
- Play spaces
- Public mooring/fishing jetties

The Masterplan also acknowledges existing amenities provided at Point Fraser and to the western end of the Riverfront.

The anticipated Aboriginal Cultural Centre (ACC) will also include a range of publicly accessible amenities.

Throughout the Riverfront there will also be a large number of smaller elements such as seating, drinking fountains, bike stands, wayfinding and interpretation signage and recycling stations.













Hassell ©

EVENTS

The City of Perth hosts some 600 events per year with 60% occurring in spring or summer. The Riverfront will remain an important location for the large-scale concerts, and outdoor lifestyle events. The Masterplan seeks to retain two large, flexible lawn spaces which can still attract a large number of patrons for outdoor exhibitions and concerts.

The focus for the larger events will be at the Event Precinct on the large lawn (30,000m2) between Bennett Street and Plain Street. The oval lawn in the Play Precinct is a more intimate space, yet still sized at 8,000m2.

To create a more balanced Riverfront, which integrates the benefits of nature and amenities, there are a number of interstitial and modest scale spaces which can include smaller scale events or congregation capacity.

There can be markets along the pedestrian spines and at the river edge nodes. The roof gardens to The Lagoon buildings create elevated event opportunities and the generous sized riverside lawns facilitate viewing of night-time drone/light/fireworks shows.



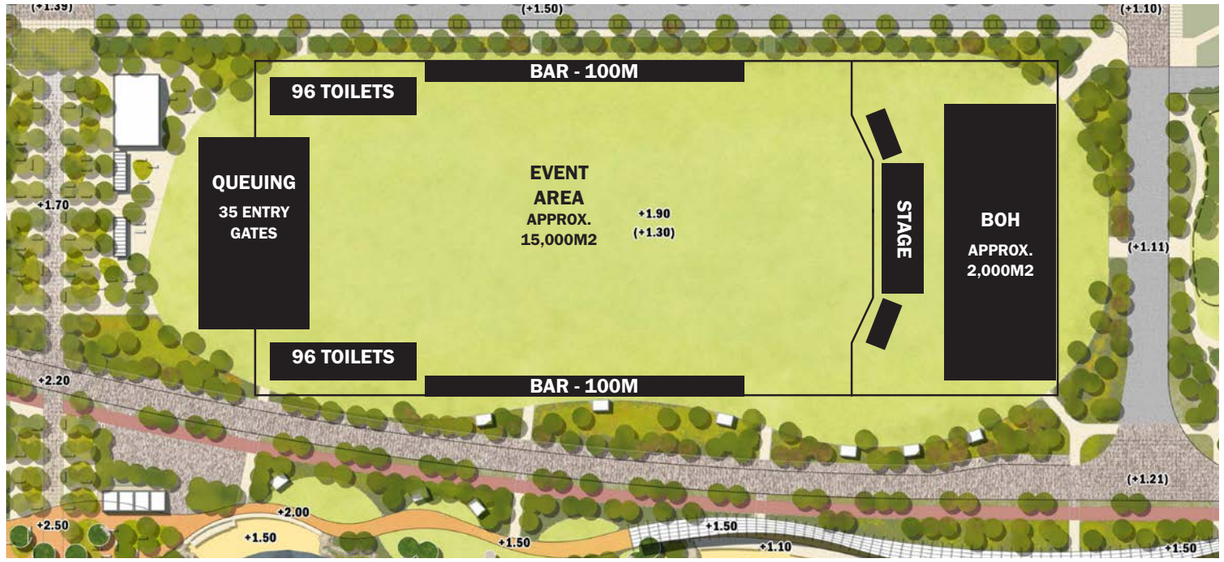


EASTERN LAWN - 30,000M2

CONCERT MODE

15,000m2 capacity
Approx. 30,000 people

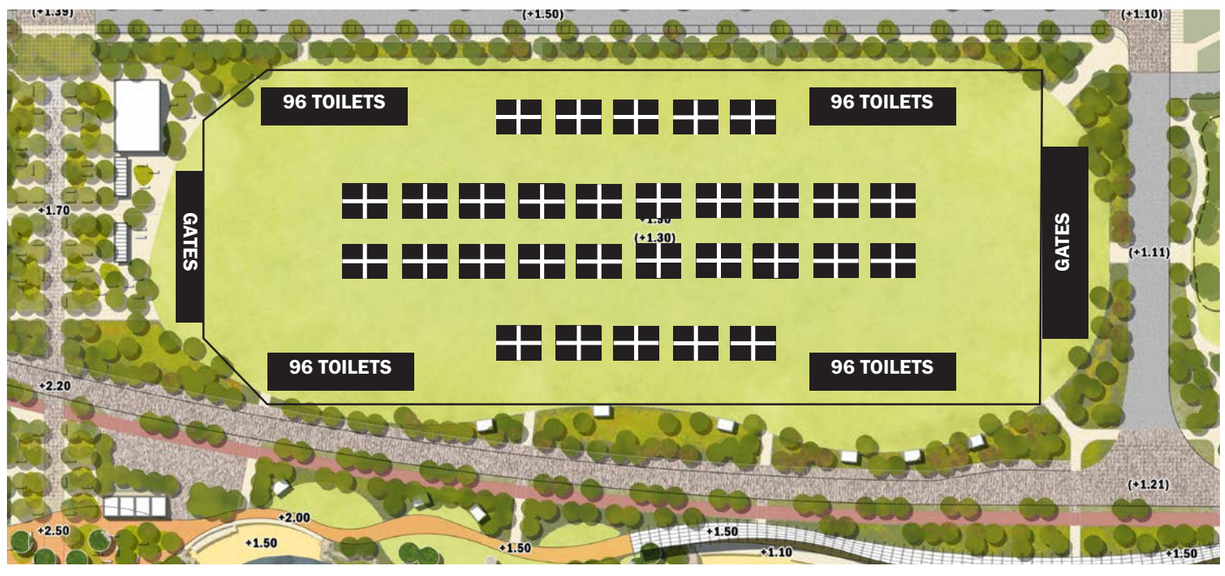
Standing viewing area - 0.5m2/person



OUTDOOR DISPLAY EVENT

18,000m2 capacity (Excluding display area)
Approx. 18,000 people

Standing viewing area - 1m2/person



DISPLAY AREA 130M2
4 DISPLAY AREAS
EXTENSIVE CIRCULATION

PLAY

Attracting families and children of all ages is a key component of the Masterplan. A multi-generational playspace (7,400m2) is located in the Play Precinct. This will include sports courts, skate and nature play.

Throughout the Riverfront there will be additional discovery play elements included in the design to provide moments of delight and wonder for kids, as well as adults. These will be located amongst the nature in Precinct 3, wetland zones, as well as along the Dyeedyallalup river walk and the arbour.





SPORTS

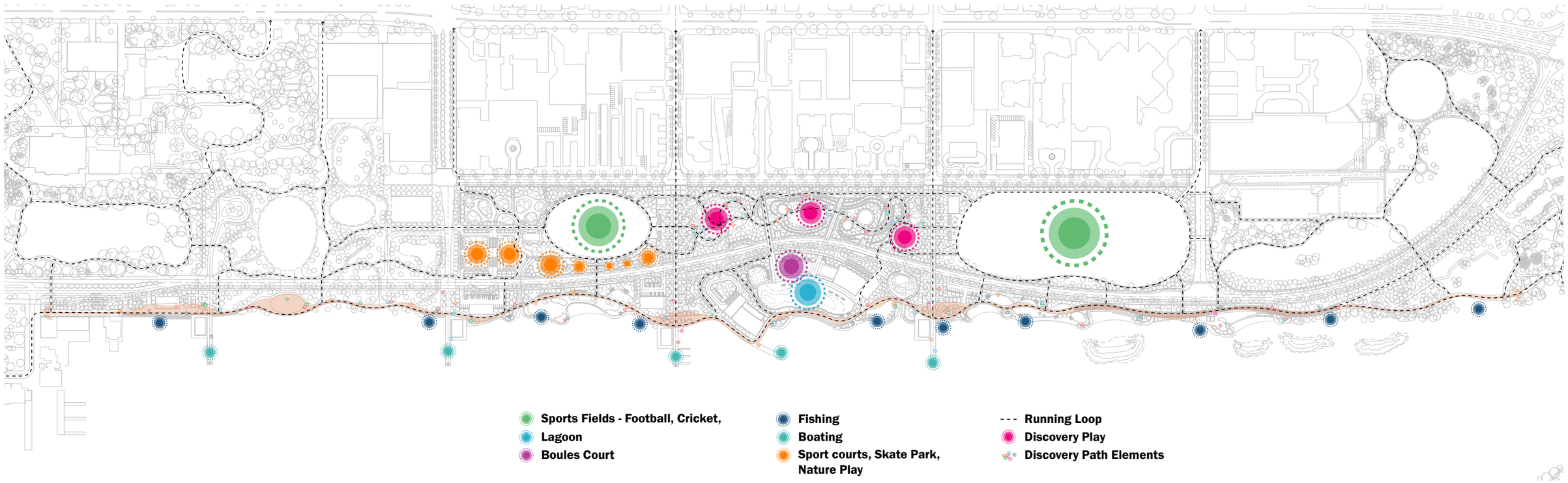
Community sporting activities of a formal and informal nature are facilitated by the Masterplan.

Two large playing fields are retained which can accommodate cricket, AFL and soccer.

More leisurely sporting activities can be founded at The Lagoon (swimming, boules) and by the river (fishing, canoeing, boating). The extensive, looping pathways create multiple experiences for runners throughout the Riverfront.







Hassell ©

INTERPRETATION

The Riverfront has a high level of cultural heritage significance. The stories of the Riverfront will be celebrated and communicated to the public.

The City of Perth developed a Local Heritage Survey in 2022 which has uncovered many stories relating to the Riverfront. The report covers the historical and thematic context, from the pre-colonial, colonial and post-colonial development and transformation of the waterfront, and the current and future plans and projects for the Riverfront revitalisation.

A bespoke Interpretation Strategy and Implementation Plan will be a requirement to ensure the cultural richness of the Riverfront is articulated.

There are many interpretive design opportunities throughout the Riverfront to tell these stories of place.



View of Perth and the foreshore looking over the Swan River from Mount Eliza, c1865 (City of Perth Cultural Collections)

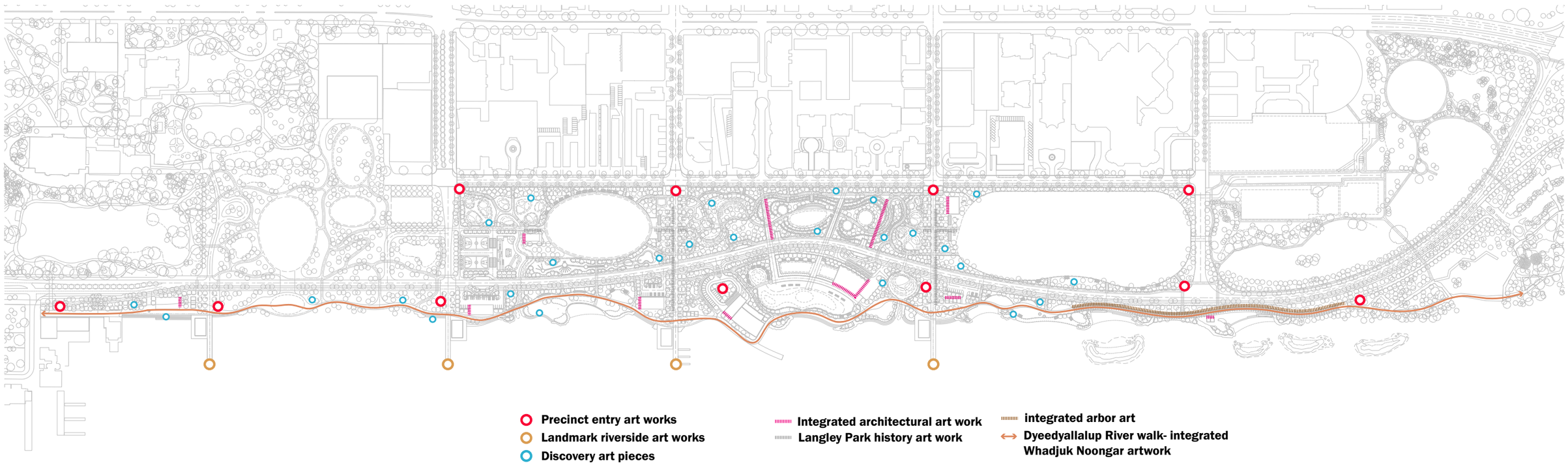
PUBLIC ART

A comprehensive public art strategy will be developed for the Riverfront. This will be managed by a specialist public art coordinator and look to engage with world class local and international artists. Whadjuk Noongar artists will be integral to the process.

The creation of a network of permanent, temporary, and mixed media art pieces can enrich the experience for visitors, showcasing the culture and stories of the Riverfront. The plan below illustrates how the Masterplan layout can support an exciting public art trail.







SAFETY AND INCLUSION

The City of Perth has a diverse residential community, vast workforce that visits the city every day and attracts millions of international and national visitors each year.

The Masterplan actively creates inclusive spaces for these women, men and non-binary people through developing a sense of safety, accessibility, participation through engagement, and importantly the feeling of legitimacy within the places that are created.

A gender sensitive approach will seek to understand and embrace diversity and re-address inequalities in the design of the public realm to create more inclusive and equitable environments for everyone.

The Masterplan creates the framework for inclusive places by providing opportunities for,

- Visibility through clear sight lines and safety through passive surveillance.
- Accessible, legible and connected places.
- Targeted consultation and post occupancy evaluation.
- Good place management and social places.
- Regular events, destinations creating reasons to enjoy the public realm.
- Comfortable places with a strong identity and unique sense of place.
- Inclusion of women and gender diverse stories to be reflected in the art strategy and wayfinding.
- Careful consideration of lighting and accessible pathways.
- Considered urban greening and access to shade.
- Urban furniture that supports the elderly, those with limited mobility and adults with small children.
- Ensuring clean, safe and well-maintained public toilets including the provision of Changing Places facilities.







WAYFINDING

The Masterplan creates a precinct that will support people walking, cycling, riding or driving to the Riverfront. An inter-connected approach to signage and intuitive wayfinding will support pedestrians to find their destination, guide visitors from CAT bus stops on Riverside Drive, assist people to find DDA parking, and importantly enrich the sense of place through the display of important stories of place alongside public artworks.

The Dyeedyallalup river walk runs the length of the Masterplan area at the river's edge. It is a strong east – west connection that joins Matta Gerup to the Aboriginal Cultural Centre, Barrack Street Jetty, Elizabeth Quay, and across to Kings Park (Kaarta Garu). The Dyeedyallalup river walk is a key wayfinding element within the precinct. To complement this strong wayfinding device there will be shady, protected seating every 60 metres that will accommodate all abilities, enabling parents and children in prams and those requiring wheelchairs to enjoy access to the Riverfront.

The Masterplan also provides the framework for an inter-connected wayfinding strategy that will include,

- Directional signage – Located at key decision-making points such as intersections with Riverside Drive and the pedestrian spines that extend from Hill Street and Bennett Street.
- Informational signage – Will display Whadjuk language and cultural stories along with the heritage of the diasporic migrant communities that live in WA. These signs will be co-located with artworks and places of interest.
- Identification signage – Marking a specific location (eg: City of Perth Community Sports Fields) and the inclusion of language and braille wayfinding.
- Waymarkers – Small signs strategically placed along a route to help people stay on the right path, especially through the green heart of the precinct.

The City of Perth will work closely with the City of Perth Elders Group and knowledge holders to create a cultural strategy to inform signage, wayfinding and art work in the precinct.

Importantly, the Masterplan and Aboriginal Cultural Centre will have complementary signage strategies to ensure the continuity of experience.

The final wayfinding implementation plan and detailed designs will align with the City's well established guidelines.

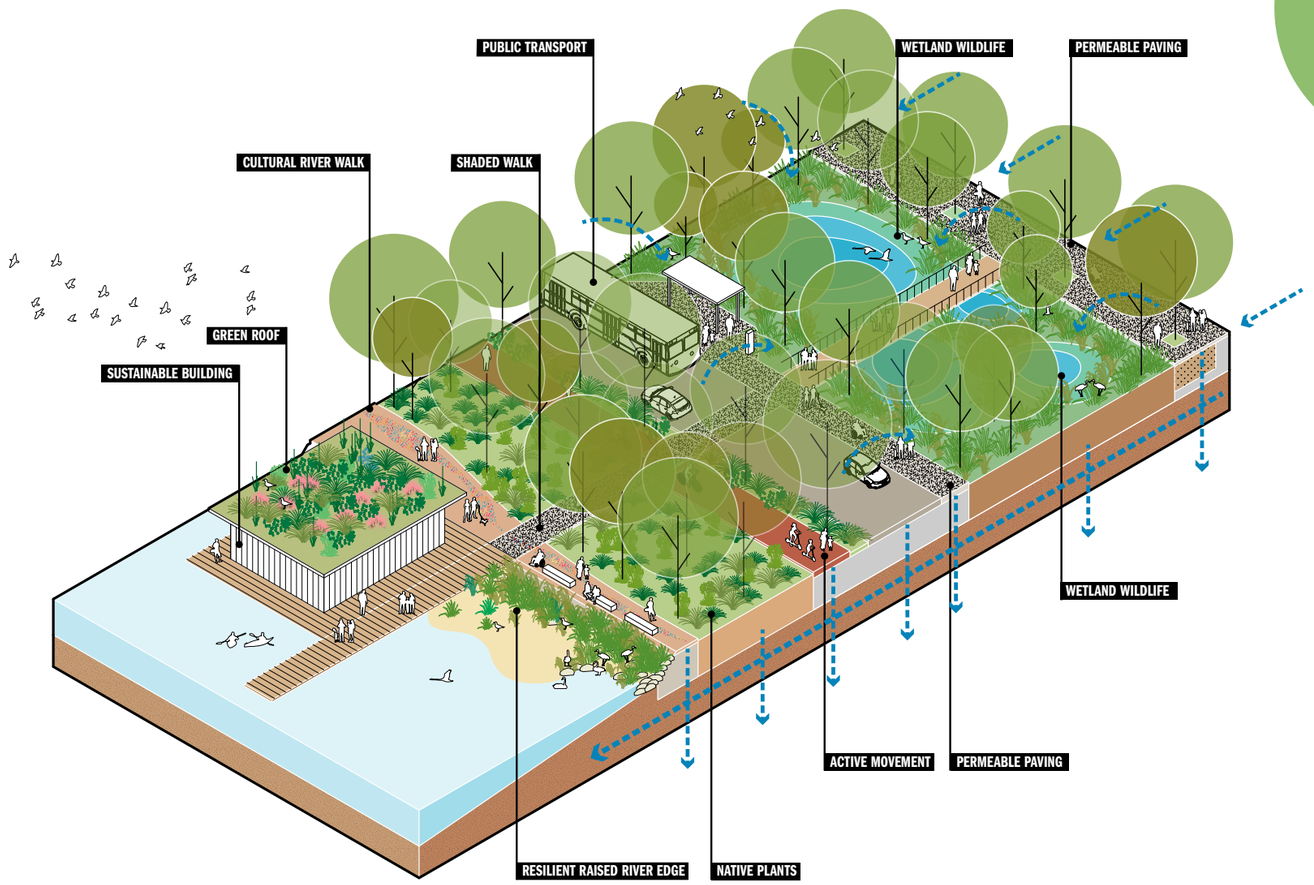






Hassell ©

A CHANGING CLIMATE



Climate change is widely recognised as the most important challenge facing humanity in the 21st century. The scale of this challenge requires concerted action and an integrated approach at a global, national and local level to reduce the potentially severe consequences.

With the completion of the Climate Change Adaptation Plan (2018), the City of Perth has joined the global movement of cities committed to plan for and manage the predicted impacts of climate change.

The Riverfront, as such a large asset, has a significant part to play in the City of Perth's ongoing role in implementing governance models, partnerships, strategies and plans to counter the effects of a changing climate.

WHAT DOES CLIMATE CHANGE MEAN FOR THE CITY AND THE RIVERFRONT?

- Drought conditions - 15% reduction in annual rainfall. Winter rainfall reductions, drier conditions.
- Increased temperatures - 2-2.9% increase by 2070. More hotter days over 30 degrees and more heat waves.
- Increased risk of bushfires - Frequency and intensity of very high and extreme fire danger days to increase.
- Extreme storm events - Increase in intensity of downpours.
- Sea level rise - 0.7m rise by 2070. Langley Park potentially inundated.

The City has recognised the need to embed climate change adaptation measures which is evident through a number of current initiatives, programs and policies.

The Adaptation Plan aims to,

- Incorporate adaptation initiatives that are appropriate at the local scale and yet support regional scale climate change adaptation.
- Build capacity and awareness of climate change adaptation of the local community and City employees.
- Enable climate-resilient and sustainable development across the Perth region.

The Riverfront Masterplan is intrinsically linked to the City of Perth's commitment to do its part to minimise the effects of climate change. The design reflects the initiatives included in the Foreshore Preservation and Management Plan / Riverbank Assets Management Plan. These include,

- Increasing setback between riverbank and infrastructure - Riverside Drive downgraded and re-aligned. Its levels will also be raised to ensure it does not flood.
- Setting the platform level of new developments 300mm above the high tide level - this will be adopted for all new built form.
- Increasing the height of river edge to protect nearby infrastructure from flooding - The Dyeedyallalup river walk will be raised to levels as determined by further detailed marine engineering advice.
- Increasing vegetation on riverbanks to increase stability and resistance to storm surges - The Riverfront includes for extensive new river edge planted zones.
- Implementing detention and retention basins to manage storm water quantity and quality. - Two new significant constructed wetlands are integrated into the design.
- Implementation of drainage nutrient intervention techniques such as bio-remediation and artificial/ engineered wetlands (and where feasible, utilising flood plains, native plants and vegetation to assist in achieving biodiversity and GI outcomes) - The constructed wetlands, as well as a range of WSUD initiatives will support the cleaning of storm water before it enters the Swan River.
- Promote Urban Forest Plan - preserve, plant, address hot spots - The Masterplan proposes a major increase in tree canopy with the planting of over 3,000 native trees, suitable for the Swan River environment.
- Biodiversity actions plans for GI assets - The mass planting of native trees, ground covers, wetland and river edge species will significantly increase the creation of habitat and support heightened biodiversity along the Riverfront.





Flooding at Langley Park 2021

Hassell ©

WATER SENSITIVE CITY

The City has developed an Integrated Water Plan 2023 – 2028 (Urbaqua 2023). The plan creates a strategic framework for progressing the vision for Perth as a Water Sensitive City.

A water sensitive Perth is where:

- City of Perth residents, workers and visitors enjoy the cultural and recreational values of the Swan River and the City's water attractions which support a cool, green and activated Capital City.
- The City of Perth demonstrates water sensitive leadership and builds a community of water stakeholders to deliver collaborative and integrated outcomes which are Liveable, Sustainable and Prosperous.

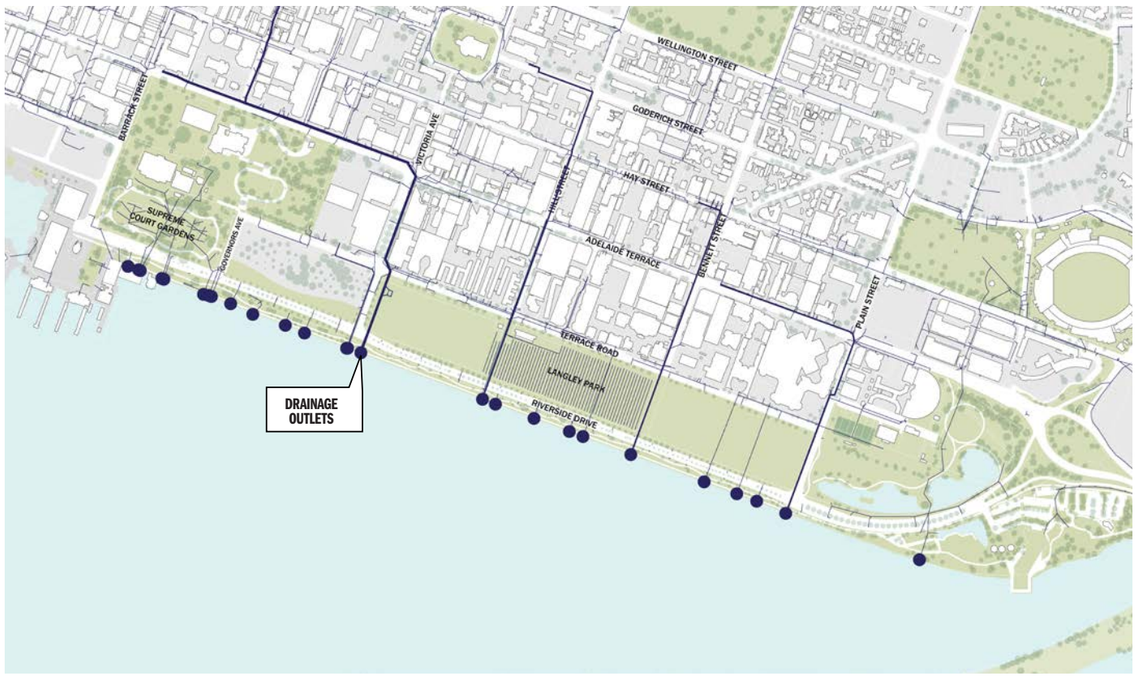
The plan assesses flooding risk, Swan-Canning water quality, groundwater levels, licences, usage, landscape, topography, contamination, potable water use and the storm water system.

The Riverfront Masterplan intends to make a significant contribution to the City's commitment to being a water sensitive city.

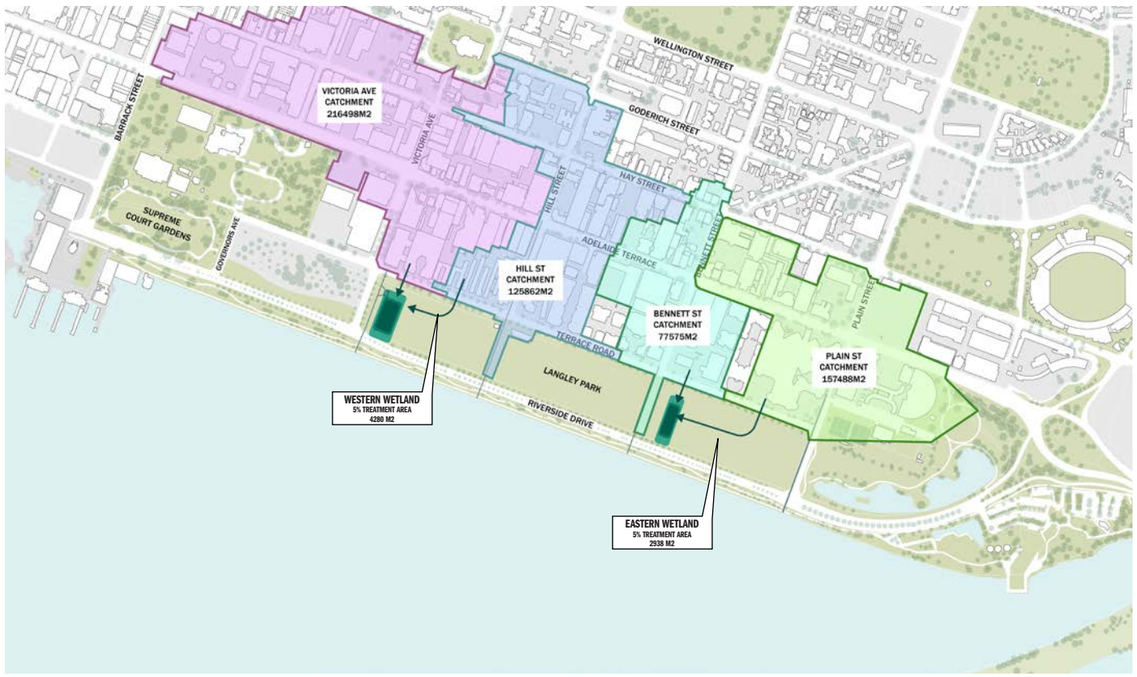
An analysis of the current storm water infrastructure which carries CBD rain water to the Swan River has identified at least 29 drainage outlets and associated pipe network. Many of these are damaged and there is minimal integration of design elements which help to remove pollutants and nutrients, as well as attenuate flows.

Storm water currently flows through Langley Park from four CBD catchments (Victoria Avenue, Hill Street, Bennett Street and Plain Street - see diagram below).

The Masterplan proposes two constructed wetland systems identified at strategic locations within Langley Park to intercept, clean and attenuate the water. These were recommended and sized by Urbaqua in 2021.



Approximate location of drainage outlets - Urbaqua (2021)



CBD catchments and constructed wetlands treatment areas - Urbaqua (2021)

Hassell ©

WATER SENSITIVE CITY

Making the blue-green connection

A key move of the City of Perth's Urban Greening Strategy is to combine the integration of open space and water elements within the city. The Riverfront Masterplan creates an exciting opportunity to enhance amenity, increase nature and bio-diversity through combining blue and green design.

Constructed wetlands

Existing drainage lines discharging to the river are low so difficult to raise and 'daylight' the existing runoff catchments from an engineering perspective.

However constructed wetlands can still be useful as these can interact with the site's high groundwater levels integrating lower invert levels to pick up the existing drainage lines.

Constructed wetlands at the Riverfront provide two benefits;

- Treat storm water from untreated catchments.
- Act as a fit for purpose land-use with regards to potential riverine flooding and storm surge.

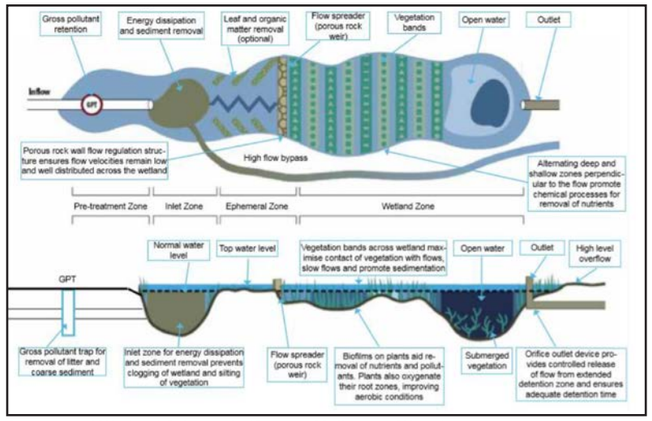
Integration of water sensitive urban design (WSUD) techniques

The Masterplan proposes that WSUD techniques are integrated to clean and attenuate water. In addition to the wetlands elements such as rain gardens, appropriately scaled hard surfacing and permeable paving can be considered.

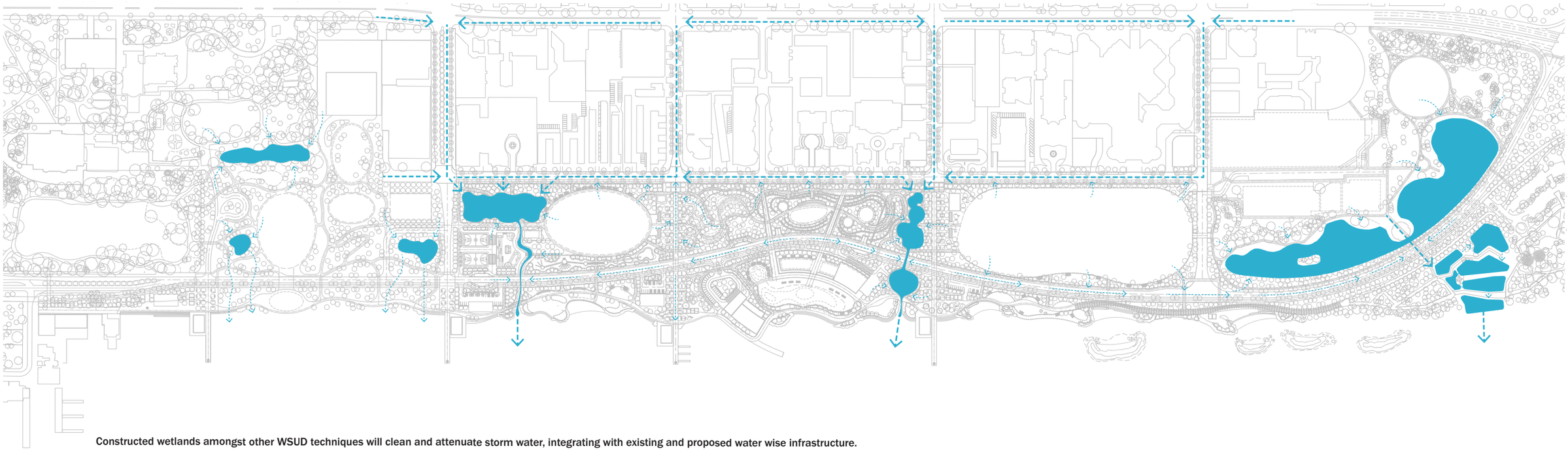
Further technical design work is required to ensure the Riverfront maximises its potential to contribute to Perth's goal in being a leading water wise city.



Urban wetlands can be designed with significant amenity and place making attributes



Constructed Wetland Schematic (Source: Melbourne Water)



Constructed wetlands amongst other WSUD techniques will clean and attenuate storm water, integrating with existing and proposed water wise infrastructure.

URBAN GREENING – BIODIVERSITY

The South-West Western Australian landscape is internationally recognised as a biodiversity hotspot. The Swan Coastal Plain features coastal dune systems of quartz and limestone, dominated by Banksia woodlands or Tuart on sandy soils, Casuarina obesa on outwash plains, and Paperbark in swampy areas. Life here has adapted to hot, dry summers and cool, wet winters.

The Derbarl Yerrigan (Swan River) is an ephemeral river and historically, the low intertidal area of Dyeedyallalup was a rich food source and gathering place, unlike today's grassed parklands.

The Masterplan aims to support the 130 species of fish and animals that inhabit the Swan River by re-wilding Dyeedyallalup and regenerating ecosystems.

Birds

The wetlands, swan islands, and intertidal areas will help to support the 80 species of water-birds in the Swan and lower Canning rivers, including the black swan, cormorants, herons, darters, pelicans, ducks, ibises, and egrets.

Amphibians

Healthier ephemeral ecosystems will attract frog species such as the motorbike frog, slender tree frog, moaning frog, and squelching froglet.

Insects

Native plant species like Eucalyptus and Grevillea flowers will attract pollinators such as bees, beetles, hoverflies, butterflies, and moths.

Reptiles

Reptiles like the long-necked turtle, bob-tailed skinks, and western bearded dragons will be enticed to return.

Marine Life

The naturalised river edge and water cleansing wetlands will enhance habitats for native freshwater fish like freshwater cobbler, western minnow, western pygmy perch, and nightfish. Improvements in river water quality will help to support jellyfish, seahorses, crabs, freshwater crayfish, and Indo-Pacific bottlenose dolphins.

Marsupials

Restoring diverse native habitats will help to attract marsupials like the southern brown bandicoot (quenda) and brush-tail possums.

Microscopic Life

Improving the quality of water currently draining into the Swan River will support the health of microalgae, macrophytes, and macroalgae, vital for the river's ecosystem.

Plants

The Swan Coastal Plain hosts over 1,500 plant species. The Masterplan will prioritise over storey species like Salt-water Sheoaks, Swamp Paperbarks, Freshwater Paperbarks, and Flooded Gums, along with rejuvenating sedge and rush communities. Detailed landscape planning, in consultation with ecologists, government agencies and cultural advisors, will inform species selection to uplift the biodiversity of the Riverfront.



Little Pied Cormorant



Indo-Pacific Bottlenose Dolphins



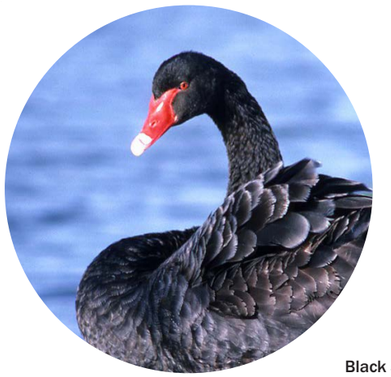
Motorbike Frog



Southern Brown Bandicoot (Quenda)



Masked Bee



Black Swan



Long Neck Turtle



Squelching Froglet



Melaleuca rhaphiophylla

URBAN GREENING – TREES

The urban forest contributes to physical and mental well-being, overall liveability, landscape character, biodiversity and climate resilience of a City.

Urban Greening Strategy and Urban Forest Plan 2016-2036

As part of the City of Perth's Urban Greening Strategy canopy cover is aimed to expand on the estimated 14,811 street and parkland trees, (excluding Kings Park) increasing it from 10.7% to 30% in a 'hot spots' targeted approach.

The Riverfront area will be a key contributor to this target.

Tree procurement and planting strategy

A comprehensive tree procurement and planting strategy is required for the Riverfront. It will be based on the retention, transplanting and introduction of a significant increase in appropriate native species.



1 Mature Fig Trees (various sp.)



2 Phoenix canariensis – grouped planting



3 Washingtonia robusta – avenue planting



4 Phoenix canariensis – avenue planting

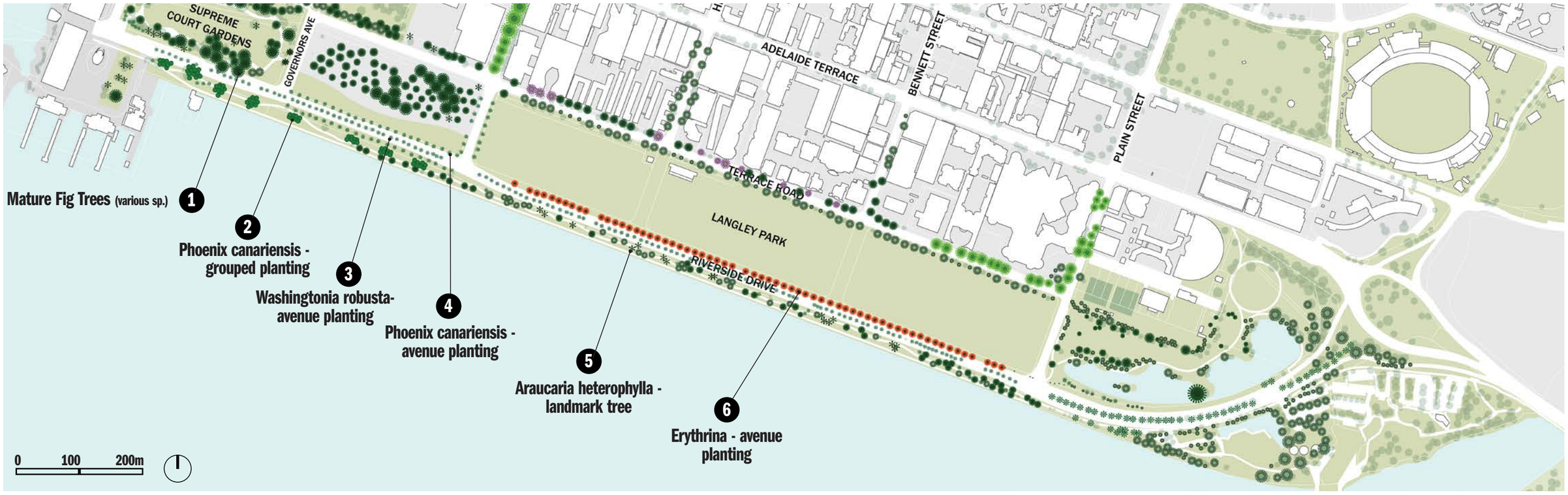


5 Araucaria heterophylla



6 Erythrina – avenue planting

The mainly exotic exiting site trees are shown on this plan



Hassell ©

URBAN GREENING – TREES

Trees to be retained

Across the Riverfront several groups of trees with amenity value and capacity to protect the river's edge from erosion will be kept (in particular the landmark Norfolk Island Pine trees).

Trees to be transplanted

There are a significant number of trees on site which can be transplanted either within the Riverfront (Sheoaks) or to other city sites (Erythrinas).

Exotic species to be phased out

Exotics such as the Washingtonia Robusta, planted along the current alignment of Riverside Drive will be phased out and replaced.

Vegetation themes/New trees

The Perth Water Buneenboro Locality lies within the Swan Coastal Plain. Vegetation themes are based on pre-existing landscape character of the vegetation complexes, soils, geology and hydrology. The Riverfront sits within the Vasse Complex and with the river's edge defined by Sheoak Woodland condition.

Species selection for new trees will be drawn from guidance by the Perth Water Buneenboro Landscape Planting Guideline (April 2024, WA Govt. DBCA) as well as the City of Perth's own Urban Forest Plan 2016-2036.

The Riverfront Masterplan envisages over 3,000 additional trees to be planted.

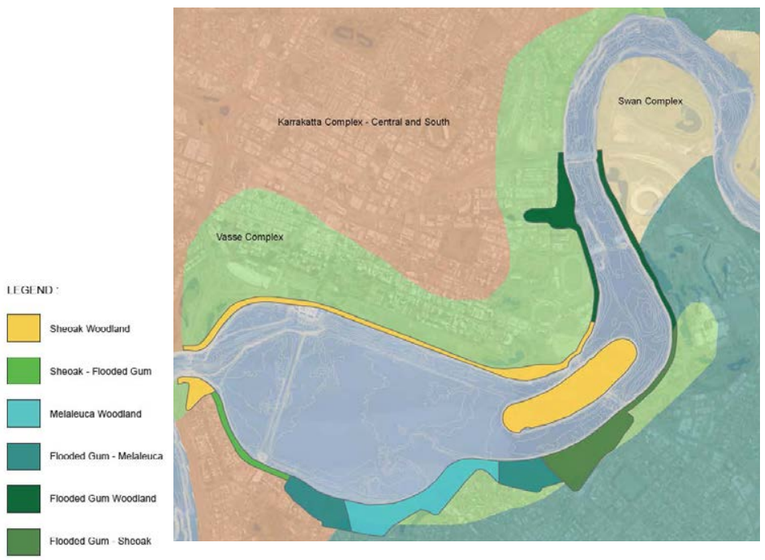
Community Planting

An exciting part of the project will be how the community embraces the planting of new trees as part of the City's regular tree planting events.



Landmark Norfolk Island Pine trees at the river edge are identified for retention in place as part of the Riverfront Masterplan.

Araucaria heterophylla
NORFOLK ISLAND PINE



Vegetation Themes
(Sources - Syrinx and DBCA Perth Water Buneenboro Landscape and Planting Guidelines).



Agonis flexuosa
PEPPERMINT



Allocasuarina fraseriana
SHEOAK



Eucalyptus rudis
FLOODED GUM



Banksia grandis
BULL BANKSIA



Eucalyptus gomphocephala
TUART



Melaleuca rhaphiophylla
SWAMP PAPERBARK



Melaleuca cuticularis
SALTWATER PAPERBARK



Eucalyptus marginata
JARRAH

Appropriate native tree species (selected from the DBCA Perth Water Buneenboro Landscape and Planting Guidelines).

URBAN GREENING – PLANTING

The Masterplan proposes a major extension in the quantum of native groundcover planting. Adding texture, colour and seasonal change, the planting will highlight the cultural and environmental significance of the Swan River Plain.

Over 500,000 natives will be planted at the Riverfront.

There is an opportunity to celebrate Whadjuk Noongar culture within the planting.

Throughout the Riverfront area there will be a variety of zones for planting which relate to their general location; river's edge, wetlands, roadscapes, margin planting, showcase wildflower planting and roof top planting associated with the buildings.

Species selection will be drawn from guidance by the Perth Water Buneenboro Landscape Planting Guideline (April 2024, WA Government Department of Biodiversity, Conservation and Attractions). The species shown here are drawn from this list. In future design stages the planting palette will undergo rigorous review and discussion to ensure stakeholders and the community understand how the planting will mature, the benefits it will have and of course implications for maintenance.



Juncus kraussii
SEA RUSH*



Carex appressa
TALL SEDGE



Anigozanthos manglesii
MANGLES KANGAROO PAW



Hardenbergia comptoniana
NATIVE WISTERIA (CLIMBER)



Macrozamia riedlei
ZAMIA



Grevillea bipinnatifida
FUSCHIA GREVILLEA



Baumea juncea
BARE TWIG RUSH*



Lepidosperma longitude
PITHY SWORD SEDGE



Anigozanthos viridis
GREEN KANGAROO PAW



Banksia dallanneyi
COUCH HONEYPOT



Melaleuca lateritia
ROBIN REDBREAST BUSH



Beaufortia elegans
ELEGANT BEAUFORTIA



Ficinia nodosa
KNOBBY CLUB RUSH*



Dianella revoluta
BLUEBERRY LILY



Conostylis candicans
GREY COTTONHEADS



Melaleuca huegelii
CHENILLE HONEY MYRTLE



Verticordia plumosa
PLUMED FEATHER FLOWER



Grevillea crithmifolia
GREEN CARPET

Appropriate river edge and groundcover species (selected from the DBCA Perth Water Buneenboro Landscape and Planting Guidelines).

ACID SULFATE SOILS

ACID SULFATE SOILS

Acid sulfate soils (ASS) are widespread in low-lying coastal areas of Western Australia. They are common along the coastal plains within water-logged, groundwater dependant and high groundwater table environments.

The Department of Environment Regulation (DER) has published ASS risk maps for most coastal regions of Western Australia where there is a high to moderate probability of ASS occurring. Where a development cannot be redesigned to avoid disturbing ASS, the risk maps are used to trigger site specific investigations and management strategies for ASS soil disturbance and/or lowering of the groundwater table.

Perth Riverfront is identified on the ASS risk map classes as Class 1 (red) - High to moderate risk of ASS occurring within 3m of natural soil surface which could be disturbed by most land development activities.

The Riverfront project will require a detailed investigation and management of ASS disturbance. Precinct 3, the wetlands, the jetties and the river edge works in particular will impact ASS. An ASS management plan will be required to be prepared and submitted to DER for review prior to the commencement of ground-disturbing activities.



Acid Sulfate Soils Risk Map (Class 1 - High to Medium Risk). Source DER National Map

IRRIGATION

IRRIGATION

With limited supplies of water to establish and maintain landscaping it is an important aspect of the Riverfront Masterplan to work to develop an integrated water use strategy. To make a significant contribution to an increase in urban tree canopy cover and to ensure the establishment of groundcover planting, an approach to irrigation design is required which seeks to minimise water use.

There are current restrictions on licensing of water for irrigation purposes in the Riverfront area. The Masterplan will seek to ensure water use is minimised for established and ongoing maintenance.

The considerable reduction in space allocated for lawns is a strong to start. Winter planting of water-wise natives, as well as planting of smaller rather than larger trees are typically adopted methods of establishing extensive areas of new landscaping.

There will be a requirement for an early next stage project to define these parameters, ensuring that ongoing water use is sustainable, acknowledges the challenges of this particular site and considers the wider effects of climate change.



Groundwater Availability for Irrigation - Fully Allocated. Source DWER Water Register/CoTerra Environment

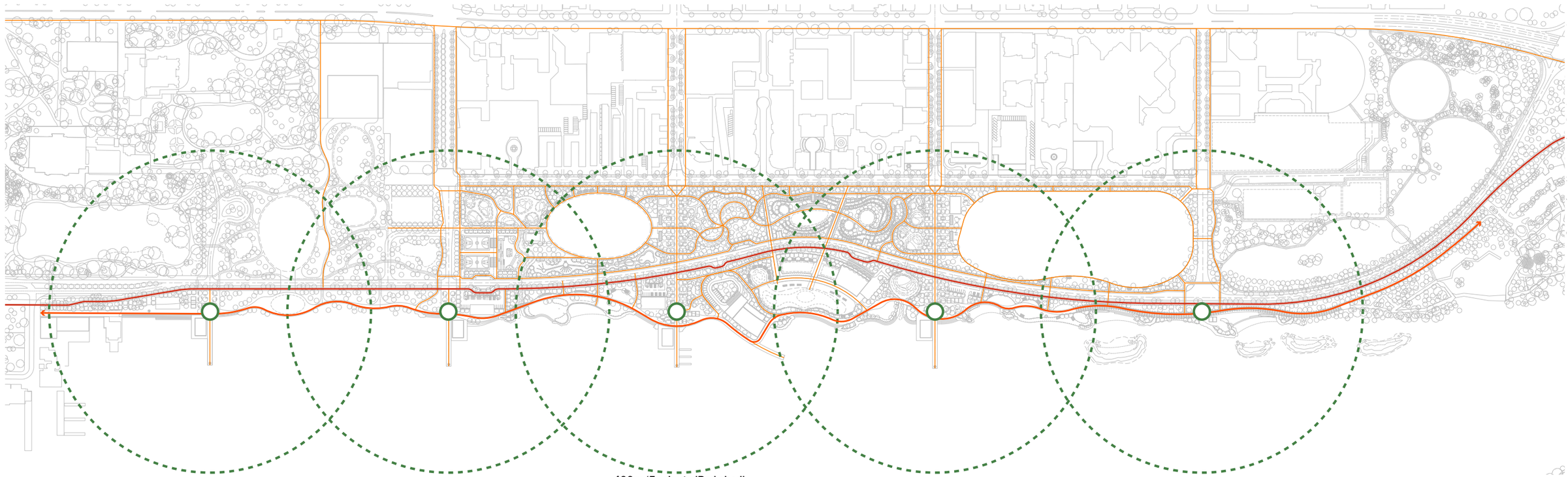
WALKABILITY

Enhancing the Riverfront's walkability is perhaps the number one aspect of improving how people move and through the area. The Masterplan aims to create enjoyable and comfortable walking journeys which are legible and attractive to undertake.

The inclusion of activation nodes at less than 400 metres apart (5 minute 'ped shed') establish easy to reach pause points. These help to facilitate an enjoyable river walk from Barrack Square to Point Fraser.

In addition, the north-south connector spines to the city grid will entice people through the parkland to the river.

There is also a range of walkable routes east-west through the heart of the park which move through the wetlands, playspaces, lawns and the two dynamic rising boardwalks which link to the roof top parkland over The Lagoon car park.



400m/5 minute 'Ped shed'

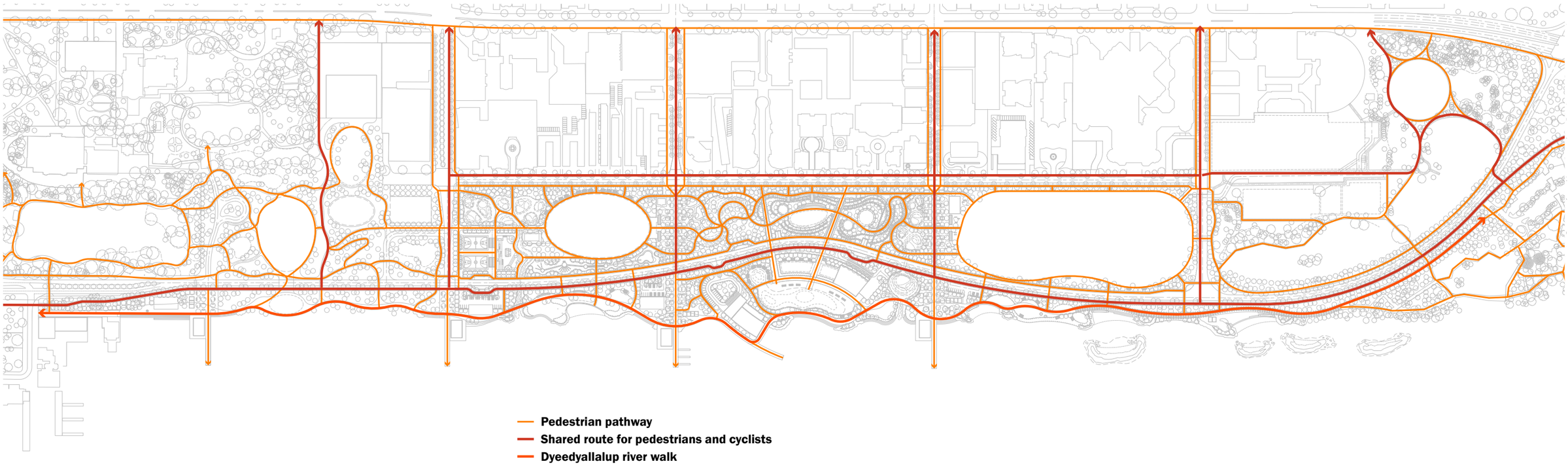
ACTIVE MOVEMENT

Active movement options via cycling and e-scooters are a high priority for the Riverfront Masterplan.

The re-alignment of Riverside Drive also sees the shared path re-routed alongside the road.

These pathways connect to Barrack Square/Elizabeth Quay, through the ACC and PCH sites and extend across the new Causeway Pedestrian and Cyclist Bridges.

More informal shared surface routes for active movement options exist along the new pedestrian spines connecting to Hill Street and Bennett Street and into the city centre.

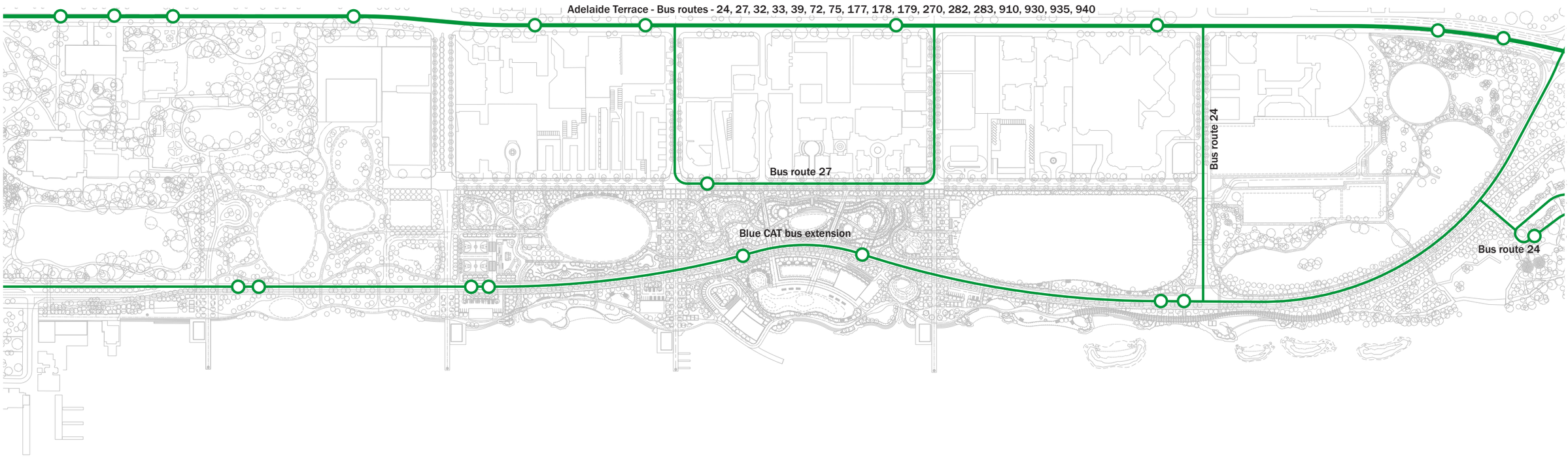


- Pedestrian pathway
- Shared route for pedestrians and cyclists
- Dyeedyallalup river walk

PUBLIC TRANSPORT

The Masterplan retains existing bus routes which connect with Terrace Road (No. 27), Adelaide Terrace (see diagram) and Point Fraser (No. 24).

The plan also promotes the extension of the Blue CAT from Barrack Square along the re-aligned Riverside Drive with stops envisaged at the Aboriginal Cultural Centre and Precincts 2, 3 and 4. It could then potentially connect with Point Fraser and across the river to Burswood Park and Optus Stadium.



ROAD NETWORK

The re-alignment and downgrading of Riverside Drive is a key road network initiative within the Masterplan.

It is important to retain a vehicular route along the Riverfront, in particular to ensure the feasibility of the Precinct 3 while limiting the impact on Terrace Road.

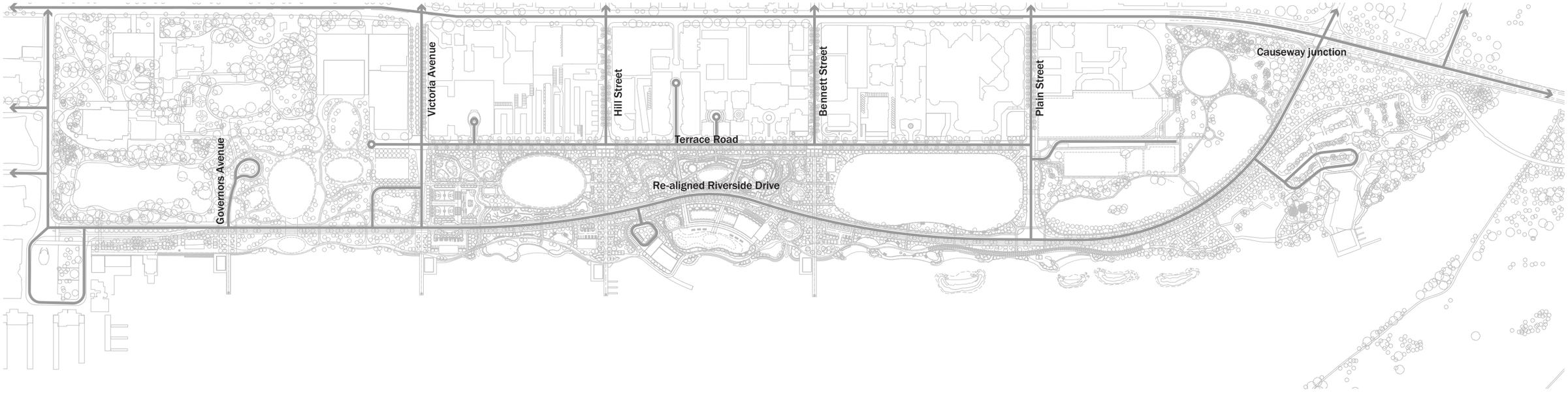
The downgrading of Riverside Drive retains one lane each in direction (see cross section). This extends from Barrack Square to the Causeway. At the Causeway the teardrop junction is rationalised into a simpler crossroads controlled system.

The Masterplan envisages upgrades to Terrace Road, Victoria Avenue, Hill Street, Bennett Street and Plain Street with wider pedestrian pathways, rationalised parking, WSUD initiatives and improved tree canopy.



Typical Precinct 4 cross section through the river edge and re-modelled Riverside Drive

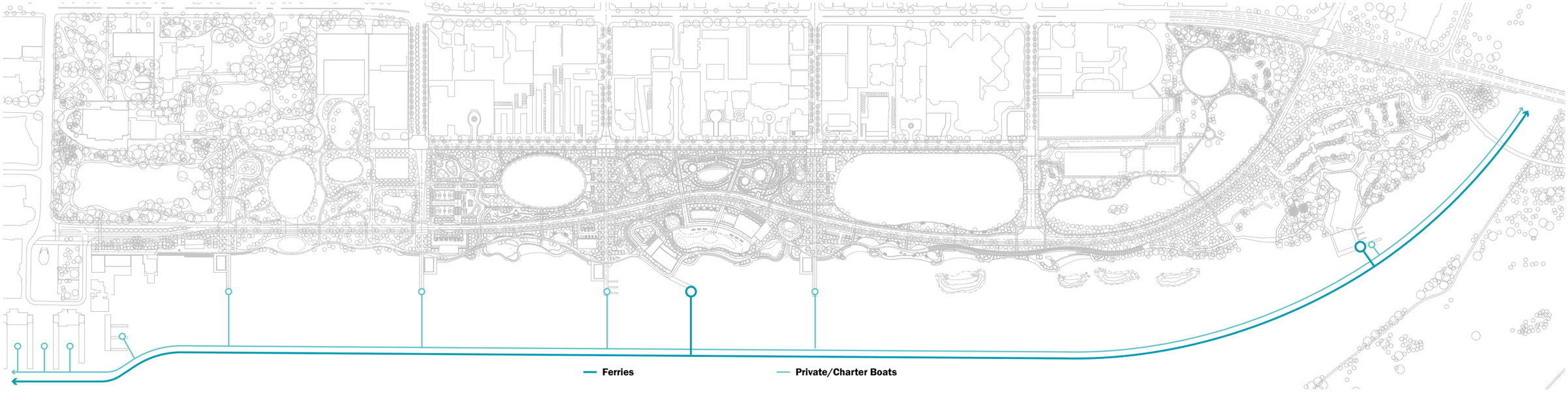
0 2.5 5 10m



THE RIVER

The Swan River can contribute more to the movement of people up and down the Perth Riverfront. The Masterplan proposes a public ferry stop in the Precinct 3, to support The Lagoon and multiple food and beverage outlets.

Additional public mooring jetties are proposed at the activation nodes. It is the intention to allow private boats to moor for extended periods to create more flexible boating leisure pursuits, as well as support the commercial viability of the restaurants and cafés.



PARKING

PARKING

Car parking is included in the Masterplan at key points. These include a large buried, two layer parking structure to support The Lagoon (approx 350 spaces).

Modest parking provision for DDA requirements, staffing, ride share drop-off and servicing are included at the riverside activation nodes. Entry parking with ride share drop-off is provided for at The Lagoon and food and beverage outlets in Precinct 3.

Street parking is retained along the western end of Riverside Drive, Plain Street, Terrace Road, Hill Street and Bennett Street.

Overall approximately 1,000 parking bays are retained in the area. Parking provision will be considered as part of a holistic movement strategy to the Riverfront, which will be further developed as the project progresses.

SERVICING

Servicing

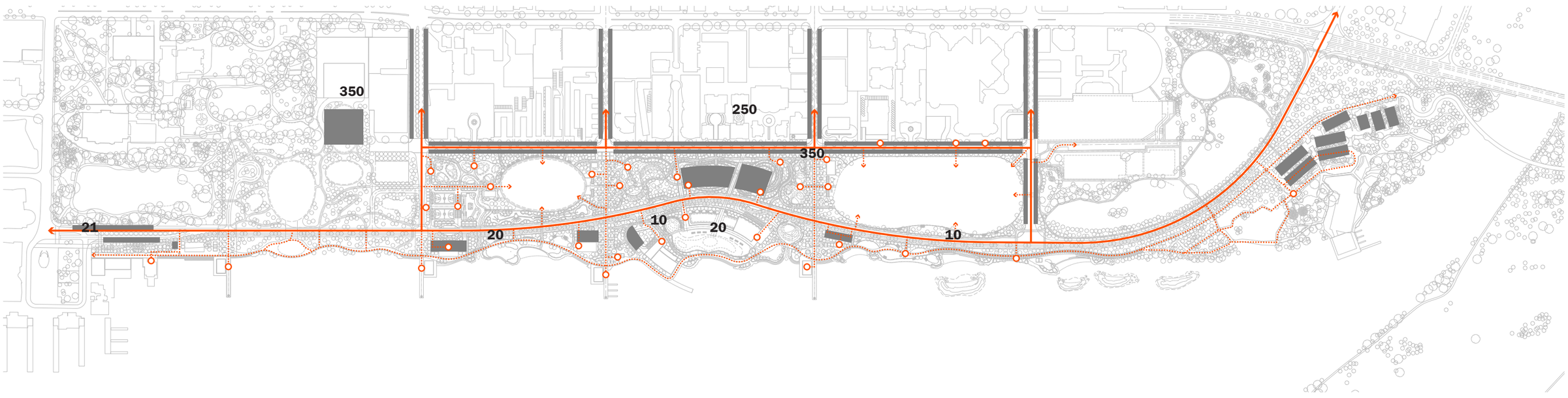
The diagram below highlights the key service and maintenance access points at the Riverfront.

Maintenance vehicles will be able to access the river walk and the beaches. There will be access points to the constructed the wetlands.

Designated access connections will be established for servicing the large lawns and extensively planted areas.

The proposed Lagoon and range of restaurants and other food and beverage outlets will all require service points.

All development projects will require a waste management and servicing strategy to be approved by The City and WAPC.



Hassell ©

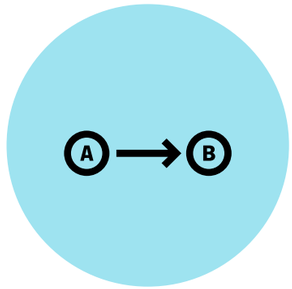
7. IMPLEMENTATION



PROJECT PLAN

The implementation of the Masterplan for Perth City Riverfront will occur over a number of years with the support of many stakeholders and the community. A transformational project of this scale requires a strategic approach that includes,

- Planning which coordinates with the development in adjacent projects.
- Phased approach.
- Government and private sector.
- Addresses degraded infrastructure.
- Ensure quick wins for community amenity.



WEST TO EAST

WORKS IN THE MASTERPLAN WILL BE DEVELOPED MOVING EASTWARDS

With significant projects occurring at the western end of the Masterplan it is logical to optimise the investment and extension of amenity that will occur in Precinct 1 – The Cultural Precinct. Projects such as the upgrade to Supreme Court Gardens, the Aboriginal Cultural Centre and the Perth Concert Hall that will draw people closer to the River's edge.

The Masterplan integrates these projects and ensures a continuity of experience through the precinct into other areas of the Riverfront.



RIVERSIDE DRIVE

ENSURING PEDESTRIAN FOCUSED CONNECTIONS

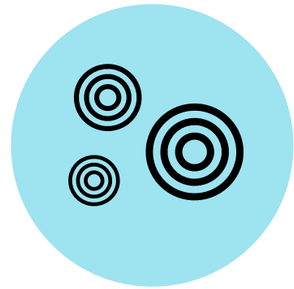
Riverside Drive is a key feature of the Masterplan landscape and one of the infrastructure elements that is a barrier to people connecting with the Swan River. The construction of Elizabeth Quay has reduced traffic demand along Riverside Drive by 60%, opening up the opportunity to re-think how this connection will contribute to the Masterplan. By creating a slower moving, pedestrian focused road that is placed away from the river's edge ,the Masterplan can ensure a naturalised, accessible riverfront while preserving a tourist drive experience.



RIVER WALL, RIVER EDGE

CREATING A RESILIENT RIVER'S EDGE BY RECONSIDERING THE RIVER WALL

An important trigger for the Masterplan is the need to address the degraded river wall. With Riverside Drive being re-aligned away from the river's edge there is sufficient area to propose a resilient, naturalised condition that will contribute to the health of the Swan River and protect infrastructure. The Masterplan ensures there is sufficient area to create protective headlands, resilient beaches, and intertidal areas for native plants and animals, creating healthy eco-scapes. A natural systems approach to the banks of the Swan River will support the health of the 130 species of fish and wildlife that make the Swan River their home.



QUICK WINS

DELIVERING ON THE PROJECT VISION

With a project of this scale, it is important to demonstrate the commitment to the long term vision through 'quick wins' that deliver on amenity, authentic community engagement and enhanced urban canopy. Precinct 1 and Precinct 2 integrate a range of short term quick-win projects that can quickly support the health and well-being of families living in the City.

Further engagement and collaboration with Whadjuk Noongar advisors and artists can lead to defined quick-win projects on the Dyeedyallalup river walk.

STAGING

The Masterplan provides a flexible framework for projects to occur over the long term. There are projects identified of varying complexity, scale and cost, some of which require sustained momentum between the Federal, State and local government, supported by the private sector. Three broad time frames are proposed: Short (1-5 yrs), Medium (6-10 yrs) and Long (11-20yrs).

By identifying three broad time frames the City of Perth is able to ensure key moves are undertaken to establish the framework for delivery, as well as undertake targeted projects to deliver on amenity in the short term. The identified time lines also enable community engagement and deep cultural understanding to infuse the design.

Short term projects include:

- **Stage 1** – Precinct 1 river edge and landscape works connecting to Barrack Square, Supreme Court Gardens and Aboriginal Cultural Centre.
- **Stage 2** – Precinct 2 wetland, playground, cafe and oval to the east of the Aboriginal Cultural Centre.
- **Stage 3** – Precincts 2, 3 and 4 re-aligning Riverside Drive, landscaping and establishing the pedestrian spines to the city. Excludes The Lagoon development
- **Stages 3a, b & c** – Precincts 2 and 3 river edge activation nodes.

SHORT TERM

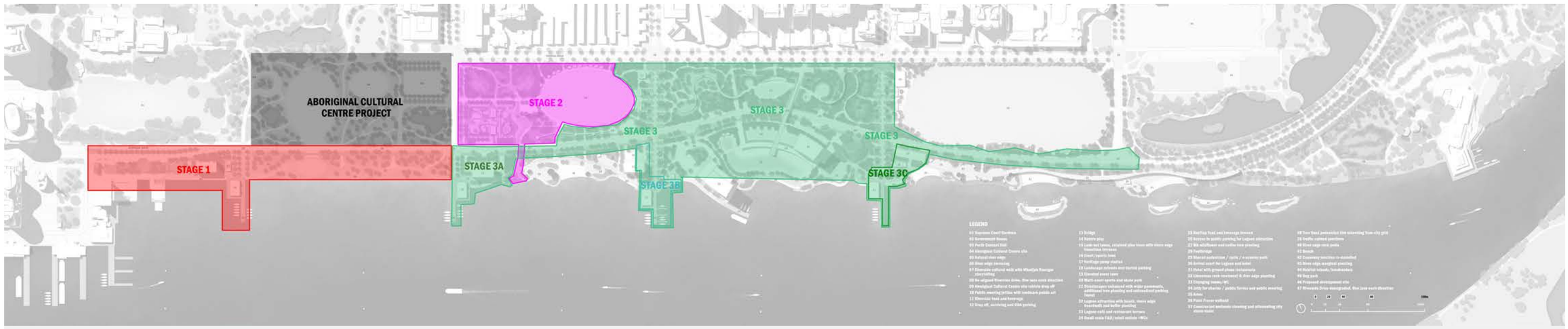
Stages 1, 2 and 3

1 – Barrack Square, Supreme Court Gardens, ACC connect

2 – Playground, wetlands, cafe and oval

3 – Riverside Drive, landscaping and pedestrian spines

3A, B & C – River edge activation nodes - public jetties, plaza nodes and cafés



STAGING

Medium term projects include:

Stage 4 – Precincts 2, 4 and 5 re-modelling of the river's edge.

Stages 4a & b – Precincts 4 and 5 breakwater/habitat islands.

Stage 5 – Precinct 4 upgrades to the eastern event and sports lawn, including new changing rooms and extensive areas of native planting.

MID TERM

Stages 4, and 5



4 – Re-modelling river edge

4A and B – Breakwater/habitat islands

5 – Event/sports lawn, changing rooms

STAGING

Long term includes:

Stage 6 – This is the most significant stage of the project resulting in the construction of The Lagoon with supporting amenities, retail and F&B outlets. A 350 bay car park structure under parkland is located north of Riverside Drive.

Stage 7 – Initially this Precinct 3 area may be landscaped to protect The Lagoon patrons from the prevailing winds. Through stage 7 this area will include a vehicle drop-off, landmark F&B development with public ferry jetty.

Stage 8 – Precinct 5 Riverside Drive downgrade to two lanes, landscaping, new pathways and a simplified Causeway Junction.

LONG TERM

Stages 6, 7 and 8

6 – The Lagoon, car park and landscaping

7 – F&B development, drop-off and jetty

8 – Riverside Drive



Hassell ©

AUSTRALIA

BRISBANE

Yuggera and Turrbal Country
Level 2, The Ice Cream Factory
45 Mollison Street
West End QLD
Australia 4101
T +61 7 3914 4000
E brisbane@hassellstudio.com

MELBOURNE

Wurundjeri Country
61 Little Collins Street
Melbourne VIC
Australia 3000
T +61 3 8102 3000
E melbourne@hassellstudio.com

PERTH

Whadjuk Country
Level 1
Commonwealth Bank Building
242 Murray Street
Perth WA
Australia 6000
T +61 8 6477 6000
E perth@hassellstudio.com

SYDNEY

Gadigal Country
Level 2
Pier 8/9, 23 Hickson Road
Sydney NSW
Australia 2000
T +61 2 9101 2000
E sydney@hassellstudio.com

ASIA

HONG KONG

22F, 169 Electric Road
North Point Hong Kong
T +852 2552 9098
E hongkong@hassellstudio.com

SHANGHAI

12F, 45 Caoxi North Road
Xuhui District
Shanghai 200030 China
T+8621 5456 3666
E shanghai@hassellstudio.com

SINGAPORE

33 Tras Street #02-01
Singapore 078973
T +65 6224 4688
E singapore@hassellstudio.com

UNITED KINGDOM

LONDON

Level 1
6–14 Underwood Street
London N1 7JQ
United Kingdom
T +44 20 7490 7669
E london@hassellstudio.com

UNITED STATES

SAN FRANCISCO

650 California Street
Level 7
San Francisco CA 94108
United States of America
T +1 415 860 7067
E sanfrancisco@hassellstudio.com

© Hassell. This document and the ideas incorporated within, as an instrument of professional service, is the property of Hassell. It shall not be used or reproduced in any manner what so-ever, in whole or in part, or for any other project without the prior permission of Hassell.